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QWL FOCUS



Ontario
Ministry of
Labour



Ontario
Quality of
Working Life
Centre

The Newsletter of the Ontario
Quality of Working Life Centre

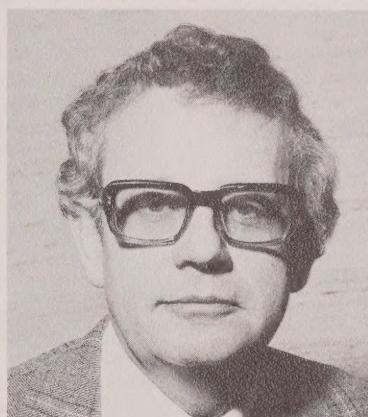
Volume one - Issue one - July 1980

There are too few opportunities in Government and, I suspect, in the private sector to get beyond the fire-fighting, day-to-day crises and to participate in projects involving longer-term improvements in social relationships.

One such project within the Ministry of Labour is the Ontario Quality of Working Life Centre. This first newsletter attempts to describe its origin, its organization and activities as well as its hopes for the future.

It is my privilege to chair the Centre's Advisory Committee. Interviews with two of the members of the Committee are published in this issue of the newsletter. Readers, I hope, will capture some of the enthusiasm and intelligent analysis which characterize the Advisory Committee's work. Without the vision of Committee members, the Centre would not have been born. Without their continuing commitment and determination, it will be difficult to achieve tangible successes.

"A Message from the Chairman of the Ontario QWL Advisory Committee"



Mr. T.E. Armstrong, Q.C.,
Deputy Minister of
Labour for Ontario.

I believe that the Ontario Quality of Working Life Centre is in the vanguard in North America in encouraging labour and management to re-examine their relationship, in challenging them to see how and in what areas workers may play more productive and meaningful roles in their organizations; and finally, in persuading them to have sufficient trust in one another, and in themselves, to permit useful experimentation to occur.

Some argue that it is difficult to take chances at a time of recession. I disagree. Quality of working life, with its potential pay-offs for workers and employers alike, should have even more relevance in times of social and economic stress.

I believe that the Centre, aided and guided by the Committee, can build upon the promising start it has made with Ontario's labour-management community. The next twelve to eighteen months will be an important time of testing. We will keep you posted.

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EDITORIAL COMMENT

Fred Emery has argued that "the future will be largely shaped by the choices people make, or fail to make, and it will not be moulded simply by blind forces of technology, economics or biological reproduction". Within society, the leading part which determines the direction of these choices, is the productive system: the complex of organizations concerned with the social production of goods and services.

The productive system and the people involved in that system are becoming increasingly enmeshed in a turbulent environment, caused in part by rapid technological change, and are being forced to seek out new organizational patterns in order to cope with the ensuing uncertainty. The search for new patterns brings with it an opportunity for new ways of enhancing human potential and reaffirming human values.

Improving the quality of working life is an integral part of this attempt to cope with a turbulent environment. As such, it will become a key component in shaping the future. Quality of working life or QWL focusses on the quality of the relationship between the worker and his working environment as a whole. As such, it implies a new work ethic which rediscovered the human dimension of work in its relation to the technical and economic dimensions of the design of jobs.

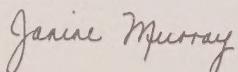
The Ontario Quality of Working Life Centre has been established by the Government of Ontario and a multi-partite Advisory Committee in order to enhance the quality of working life of people in Ontario.

It will be the purpose of this newsletter to focus on the issues and developments surrounding the quality of working life, particularly as they impact upon Ontario.

As such, each issue will impart information related to five important functions. These include:

- the focussing of each issue on a particular theme in the quality of working life;
- the dissemination of information on the Centre and its activities;
- the clearing of information on events and project news in Ontario and elsewhere;
- the provision of reference material; and finally,
- the creation of a forum of debate and experience on QWL in Ontario.

This, the first issue of the Centre newsletter focusses on the origins and first year of operation of the Centre and on the meaning of the quality of working life. The newsletter hopes to stimulate both your interest and your comments on QWL. Future issues will print those comments as part of an on-going dialogue amongst readers and between readers and the Centre. We hope that *QWL Focus* will assist in forming and reinforcing the linkages between people concerned with improving the quality of working life.



Janine Murray,
Editor.

QWL FOCUS

The Meaning of the Quality of Working Life

The quality of working life is, together with the quality of other life spaces such as the family and the community, part of the larger mosaic of the quality of life.

Quality of working life reflects a concern for the quality of people's experience at work and hence for the quality of the relationship between people and their work setting.

To be concerned about quality, which means being able to make judgements about what is and is not desirable, is a

basic part of what it is to be human. We are able to really deal with quality only if we are willing and able to make choices. We must be able to engage in an open dialogue about what is good and bad, which means coming to terms with the difficult reality of different opinions. Furthermore, we must deal with these differences in a way which engages people in a process which is itself rich with that same fundamental concern for quality.

The quality of working life or QWL is determined by the way in which we deal with "choice" in terms of the workplace.

Firstly, what choices are made, for example in the original design, about the workplace and by whom and for what reasons?

Secondly, what choices remain to be made and by whom, in an on-going way in the workplace?

Choices can be made in many areas. Management, labour, and others have been working to improve wages, hours of work, job security, health and safety, and other conditions of work. These improvements are all important aspects of the quality of working life. Choices can be made, however, in other areas which cannot always be seen, measured, or bargained about, and often mean making choices which will affect how jobs are designed and work is organized.

The practical application of ideas on job design and work organization requires being explicit about what beliefs and values one has about people, organizations, and society—the three basic building blocks of QWL.

Within QWL, people are seen as purposeful beings with ideals and important social and psychological needs in relation to work. They are assumed to have the ability and willingness to learn and the need and capability to make choices and handle responsibility and autonomy.

The concrete application of these QWL principles leads to the development of particular kinds of jobs and organizations. It leads to jobs which enable people to develop their abilities and fulfill their needs within the workplace. Jobs which give people real opportunities for variety, challenge, responsibility and control. Jobs which allow for continuous learning and growth, which are not dead-ended but lead to desirable futures. Jobs where people can support their fellow-workers instead of being isolated from or pitted against them. Meaningful jobs that people can talk about with pride.

In short, jobs which will give people the opportunity to be confronted with the challenge of their own potential.

Within QWL, organizations are seen as open socio-technical systems. Any production system requires both a technological organization, i.e., equipment and process layout, and a social system which interrelates people performing the necessary tasks.

The social and technical systems are interdependent and complementary. Designing or redesigning a workplace means looking at both systems in order to find the best fit between the two.

Unless technical systems are translated into tasks according to human needs and characteristics, organizations are created which function far below their potential level of effectiveness. Designing workplaces to achieve maximum complementarity of social and technical systems leads to the joint optimization of both and an optimal operation of the total organization.

Organizations are also seen as "open" systems because they are in a two-way exchange with their environments. This is important in a society which is becoming more complex and less predictable due to the increasing rate of change and the greater interdependency between all parts of society. It demands that organizations develop the ability to engage with and actively adapt to a turbulent environment in order to survive.

To actively adapt, organizations must be flexible. This

means that organizations must be designed and managed so that they can quickly detect deviations from the expected and respond effectively. Flexibility is based on a certain amount of redundancy or overcapacity within an organization.

An important part of an organization is its human resources. There are two choices for handling the question of the redundancy of human resources:

1. Redundancy of parts, which means a hire and fire policy which treats people as if they were replaceable tools, or...
2. Redundancy through increasing the range of response capabilities of the part or person. This choice treats people as beings who can and want to learn, thereby increasing their flexibility within the organization.

Choice number one is not only a wasteful and expensive use of human resources, but is dissonant with our cultural values and with the nature of man.

In terms of the organization, these principles show the need for flexible organizations which are characterized by continuous learning on the parts of both the individual and the organization. All parts of the organization must continually be able to learn about and deal with changing relationships—relationships between people and their jobs, between management and workers, between different levels of management, between the union and its members, and between the organization and its environment.

In most cases these organizations will not be built on a basic unit of one person—one job. The requirements of job satisfaction and organizational flexibility are usually better met by some form of relatively self-managing unit where a group of people share the responsibility for a more integrated, complete piece of work.

An important point about QWL is that it does not seek to abolish the adversarial system of labour relations. Collective bargaining is a useful form of conflict resolution. QWL is also useful because it offers a way of dealing with win-win as opposed to win-lose situations. In win-win situations, management and labour can cooperate to achieve gains in areas such as the redesign of work or improvements in health and safety conditions. Collective bargaining and QWL are different, but complementary processes.

Quality of working life implies a new organizational paradigm in which the organization is characterized by:
- joint optimization, not the technological imperative;
- man complementary to, not an extension of, the machine;
- man as a developable resource, not an expendable spare part;
- optimum task grouping, not maximum work-breakdown;
- internal control by workers and groups, not exclusive external supervisory control;
- a flat organization, not a bureaucratic pyramid;
- collaboration, not competition;
- commitment, not alienation;
- and finally, innovation, not adherence to the status quo.

Organizations must make the transition from the old pattern to the new if they are to survive in the fast-changing environment of the emerging post-industrial order.

Enhancing the quality of working life is, in essence, embarking on a continuous process of change—an unpredictable process guided by values and principles. QWL is an unfolding process whereby workers, management and unions engage in joint discovery. Because it involves the making of long-term choices, it is of strategic importance.

The kind of choices and the way in which they are made within organizations has an impact upon other life spaces, such as the family, the community and society as a whole, both because of the movement between those

spaces of the same people and because of the linkages in terms of shared values in each setting. The product of work is people. In other words, the real meaning of QWL lies beyond the quality of working life.

QWL FORUM

Management and Labour Discuss the Quality of Working Life



A Labour Point of View: An interview with Cliff Pilkey, President of the Ontario Federation of Labour

QWL Focus: Why did you become involved in QWL?

Pilkey: I was concerned about the alienation, particularly of younger workers, in the work place. I felt that change had to take place to give workers input into the process. I had the privilege of attending a conference in Chicago and listening to workers who had been participating in quality of working life programs. They felt that QWL was a mechanism through which they could address themselves to the question of more desirable working conditions. I supported QWL, but approached it with great skepticism as to its success in giving workers some say in the decision-making process relating to their jobs. Nevertheless I was prepared to take whatever risks were involved to see through some experimentation in QWL.

QWL Focus: How would you define the quality of working life?

Pilkey: My definition of a quality of working life program is that, in the initial stages, it should be a process where management is prepared to consult with the employees. I think that workers should have some say in jobs that they must perform eight hours a day or longer. Management has to set up a mode of communication with workers so that they are not just harnessed to a machine without knowing what's going on. In addition to the job process I really think that a quality of working life program should look at the whole question of health and safety. I think ultimately it must look at the social problems that either emanate from the job process or affect the job itself.

QWL Focus: Do you see a relationship between QWL and collective bargaining?

Pilkey: I think that there is a subtle relationship. If one could set up a QWL program where workers had some say in the decision-making process in relation to their jobs, that could very well be reflected in the collective bargaining process in terms of changed attitudes, better communications between the parties and a sharing of what the enterprise is all about. A much better climate for the collective bargaining process could develop. I think that a QWL program initiated in an enterprise has to be

part of a written agreement. Whether it is part of a collective bargaining agreement is another question but certainly there should be some formal documentation of the concept and process.

QWL Focus: How does QWL impact upon the adversary system in Ontario?

Pilkey: While I think that there may be spinoffs from QWL in terms of more cooperation between the parties, I do not see the elimination of the adversary system. However, there may be some lessening of the bitterness that emerges as a result of the adversary system. There may be better communication involved in a QWL program. But I would not want anyone to believe that this is an alternative to the adversary system.

QWL Focus: Do you think QWL will become an accepted approach in the future?

Pilkey: We are going to have to go through experimental stages to find out whether it is acceptable or not. I don't think that it is going to be any overnight phenomenon. I think that it is going to take time.

QWL Focus: What will be the impact of QWL on the labour movement?

Pilkey: I think that there will be some impact on it—to what degree is questionable. I think that there could be some changes in terms of attitudes, changes in relation to the degree of involvement of workers in their jobs.

QWL Focus: Is the Ontario Quality of Working Life Centre the appropriate vehicle?

Pilkey: I think that it is the right type of vehicle because it is perceived as a neutral organization. It must not be perceived as being one-sided. If the unions were to set it up then it would have a stigma attached to it and vice versa if management were to establish it. The Centre has the advantage of representing mutual interests.



A Management Point of View: An interview with Ralph Barford, President, Valleydene Corporation Limited

QWL Focus: Why did you become involved with the QWL Advisory Committee?

Barford: I listened to General Motors/UAW people present their experience with QWL in a session in Chicago. At first I was fairly skeptical. I thought it was a new buzz word for some manipulative technique that would be used for some ulterior purpose. But as that session wore on I became more and more impressed with the fact that it was basic good management. There is nothing new in that. It also seemed that this was a healthy way for unions and management to cooperate. From there we formed an informal committee and went to the Cabinet of Ontario and asked for funds to set up the

Centre to promote this movement in Ontario. Cabinet had the courage to give this money although it is not a fast payoff. This is nothing with a short time horizon so it takes a lot of political courage to get something going that might extend beyond an individual politician's time horizon. Progress won't be rapid but each gain is significant to the human beings affected and if it gains momentum, it could be widespread throughout Ontario.

QWL Focus: How would you crystallize the meaning of QWL?

Barford: Firstly, there are a lot of things QWL is not. It isn't just restructuring of work, it isn't better communications as such, it isn't better dialogue, it isn't union and management working together. I think that in its very broadest sense it is people working towards a common task with adequate understanding and adequate leadership. It is a common goal, it is listening, leadership, it is participation by the people involved in the decisions affecting their tasks. It is the old story—the man who knows best how to do the job is the man doing it. QWL to me is human participation in reaching shared goals through performing tasks.

QWL Focus: What are the goals of QWL then?

Barford: The goals of QWL are to increase the satisfaction and feeling of accomplishment by each of the participants in reaching common goals and in performing his or her individual task. You get that through participation and understanding.

QWL Focus: Are we turning people on for the sake of the people themselves or do we have an objective that goes beyond that?

Barford: Well, if you turn people on all the other objectives come into focus. If the people are turned on about doing a task, then the task is done better, faster and more effectively.

QWL Focus: What, in your view, is the future of QWL in Ontario?

Barford: Given the political courage to maintain funding, it is going to have a great future. We have a work force that is getting older and whose growth is diminishing, but we are the manufacturing centre for this country. So the demands on our skill and trades are going to get greater. It is going to be necessary for people to enjoy their work, and to accomplish this the quality of working life is central. I think it will be increasingly necessary for organizations to adopt this approach as a matter of economic necessity. In Ontario we are doing something, as opposed to sitting around wringing our hands about shortages of skill, labour, and trained workers, people not enjoying their jobs, high turnover, absenteeism—all the things that are symptomatic of dissatisfaction in the work place. Those things are going to become incredibly costly in the future.

QWL Focus: What implications does QWL have for labour-management relations?

Barford: Unions and companies have many more common than dissimilar concerns. They tend to extend the confrontational relationship of collective bargaining to all their relationships. However, their relationship is basically one of joint objectives and only

occasionally does bargaining interrupt. Quality of working life generally is going to improve that relationship. But, giving people more participation can be very threatening to managers. Management, especially first line supervision, can feel very threatened and that could be very detrimental to labour relations. Similarly, if the union members feel that this is a ploy to increase productivity, they can feel very threatened.

QWL Focus: How is QWL changing the role of management?

Barford: It opens it up more. It makes managers have their decisions tested by the people who work for them and by their peers. It opens up the whole process. Japan is cited as a great example in high productivity. In Japanese companies the decision-making process is extremely open and everyone's support is enlisted before a decision is made. Once it's made, it can be implemented very quickly. In North America managers tend to make decisions faster in order to appear personally dynamic before that support is enlisted.

QWL Focus: How translatable are some of the innovations being carried on in Europe and Japan to the Ontario situation?

Barford: The industrial relations in any country reflect very deeply its culture, structure and heritage. You can examine what other countries have done and assess its compatibility with our culture. But our culture here in terms of labour-management relations is very different from that of either the United Kingdom or the United States.

QWL Focus: How applicable is QWL to the different sectors in Ontario?

Barford: It's translatable into any sector, public or private, but it is going to be more a function of the willingness of the institutions, both union, management and government, to experiment with new forms of organization and working and sharing.

QWL Focus: What is the impact of technology upon the quality of working life?

Barford: The knowledge revolution, devoted to ideas, will impact as enormously on the human condition as the industrial revolution, which was devoted to things. One of the dangers of microelectronics is that society could become very compartmentalized. Workers are going to be highly skilled, highly intelligent, and trained in the choice of options. Unless work or tasks are interesting, involving, consuming, I think people will get bored.

QWL Focus: What is the meaning of QWL?

Barford: What we are talking about, in my terms, is people getting more enjoyment out of doing what they have to do. And why not? It's very hard to quantify the benefits that come out of that. But if as many people as possible are enjoying what they have to do anyway I think the quality of working life improves. I think managers also enjoy working more. People who work in such organizations get more satisfaction when there is a shared sense of purpose as opposed to their being mere replaceable parts.

QWL



Dr. Hans van Beinum
Executive Director
Ontario Quality of Working
Life Centre

The Ontario Quality of Working Life Centre

Background

The Ontario Quality of Working Life Centre was established by the Ontario government in December 1978 on the recommendation of a joint Union Management Advisory Committee. The Committee continues to play an active role in the development of Centre policies and programs and is itself an illustration of the principles of joint involvement and shared responsibility, principles which underlie the Centre's approach to enhancing the quality of working life. The Committee is comprised of the following members:

T. E. Armstrong, Q.C.,
Deputy Minister of Labour,
Chairman.

Sean O'Flynn,
President,
Ontario Public Service
Employees Union.

Ralph Barford,
President,
Valleydene Corporation
Limited

Clifford Pilkey,
President,
Ontario Federation
of Labour.

Stewart Cooke,
Director, District 6,
United Steelworkers
of America.

Robert White,
United Auto Workers
Director for Canada
and International
Vice President.

William Dimma,
President,
A. E. LePage Limited.

R. Terrence Mactaggart,
President,
Niagara Institute,
External advisor to the
Committee since its
inception

Robert Hurlbut,
President,
General Foods Limited.

William Macdonald, Q.C.,
McMillan, Binch.

The aim of the Centre is to contribute to the improvement of the quality of working life in Ontario. There are five major program areas through which this goal is pursued: consultation, field project work, education, information services and research. Each edition of **QWL Focus** will highlight developments in one or more of these program areas. This edition will "focus" on initial action in the field project and education program areas. Further information about the services of the Ontario Quality of Working Life Centre can be obtained by writing the Centre at:

Ontario Quality of Working Life Centre,
Ministry of Labour,
15th Floor,
400 University Avenue,
Toronto, Ontario
M7A 1T7

or by calling (416) 965-5958.

Field Projects

The Ontario Quality of Working Life Centre believes that if QWL is to become more than just a fashionable idea or another piece of academic jargon, it must prove its relevance, usefulness and strength on the shop or office floor. The Centre believes that managers, unionists and workers can only learn about and judge the merits of QWL through first-hand experience. The Centre therefore offers a broad-ranging consulting service to organizations interested in developing long-term QWL projects.

The Centre is currently actively engaged with several joint union-management clients in both the design of new work systems (greenfield sites) and the redesign of existing systems. The range of client organizations includes chemical processing plants, an auto assembly plant, an electrical manufacturing operation, an engineering division, and a mineral refinery.

Examples of the types of activities in which the Centre and its clients have been involved include: the development of a philosophy statement to guide the QWL project; the design and implementation of tailor-made workshops to help participants apply the concepts and tools of socio-technical systems analysis; the development of a QWL diffusion strategy; and the formulation of an evaluation strategy and method consistent with the principles and values underlying the quality of working life.

Being a "field project" requires the organizations to play an active role in the QWL change process. The Centre's involvement in any project is based on the client system being willing to take responsibility for managing the process of organizational change. The Centre does not bring any standard package of solutions to its clients. Instead, management, union, workers and Centre staff are involved in a joint clarification of values and a search for ways to enhance the quality of working life and the effectiveness of the organization in the day-to-day realities of its life.

While each field project is unique and is in fact writing its own history, certain principles are emerging which seem consistent across all projects. These principles have to do with issues such as the nature of the organizational change process and the nature of learning and planning in an uncertain and ever-changing environment. Future editions of **QWL Focus** will elaborate upon these principles.

Education

In order to enhance the development and facilitate the diffusion of QWL in Ontario, the Centre offers a wide-ranging education program. Several events have been co-sponsored by the Centre in collaboration with other relevant institutions such as the Niagara Institute, Lambton Community College and York University. To date the program has included three one-day introductory sessions for up to one hundred people per session; four intensive two-and-a-half-day seminars for twenty-five to thirty people; and several tailor-made events designed to meet the needs of a particular client system (e.g., understanding and applying the concepts of socio-technical systems analysis and design) or to encourage in-depth exploration of an important area of concern within the QWL field (e.g., evaluation of QWL projects). Each event in the education program is characterized by the same values and principles which underlie quality of working life. The quality of learning of each event is considered a shared responsibility of both the staff and participants, with considerable time allocated to allowing the participants to discuss their concerns, questions and hopes regarding QWL. Also, the key concepts of QWL are tested against reality by providing for a dialogue between the participants and representatives of on-going projects and by encouraging the participants to examine these concepts in the context of their own work setting. Most events have a union, a management and a joint union-management focus which allows for the development of a shared understanding of QWL while meeting

the specific needs of each interest group. Finally, the design of each event is not specified in unnecessary detail. Only minimal critical guidelines are developed beforehand. The process of learning about QWL must be consistent with practice in the workplace and this means learning to deal with uncertainty and emerging issues.

In future, in addition to introductory sessions, the Centre expects to offer a one-week residential program on the process of socio-technical systems analysis and design, a workshop on the role of supervisors in QWL projects and a series of linked sessions dealing with QWL and trade unions.

QWL CLEARINGHOUSE

Recent Events

Ottawa—The Union of National Defence Employees and the Department of National Defence have agreed to proceed in the joint exploration of Quality of Working Life concepts. A sub-committee of the National Labour-Management Relations Committee in February, 1980 was formed to examine the current situation in the Department to determine the extent to which elements of QWL exist through informal developments and to study other QWL projects in both the public and private sectors.

Ottawa—Labour Canada recently hosted the UCLA Center for Quality of Working Life Network meeting, May 7-8, 1980. The focus of the meeting was "The Practical Use of Analytical Tools and Techniques in Organizational Design and Redesign".

Toronto—The Ontario Quality of Working Life Centre in association with the Faculty of Environmental Studies of York University held a one-day seminar on QWL on February 8, 1980. Approximately 120 participants attended.

Toronto—The John Cotter & Associates course on "Design of more effective organizations to improve the quality of working life" was held, March 17-21, 1980.

Toronto—The Ontario Federation of Labour held a conference entitled "Trade Unions and Technology", April 17-18, 1980 at which a keynote address was given by Professor A. Rockman of York University on "Comparative Revolutions: The Mechanical and the Electronic Revolutions".

Niagara-on-the-Lake, Ont.—The Ontario Quality of Working Life Centre in association with the Niagara Institute held a joint union-management seminar on the Quality of Working Life, January 28-30, 1980.

Toronto—York University's Centre for Research on Environmental Quality and the Royal Society of Canada held the Sixth Annual Symposium at York University, June 9-10, 1980. The theme of the symposium was "Prospects for Man—Computers and Society".

Calgary, Alta.—John J. Cotter and Associates presented a one-week residential course on "Designing Effective Organizations to improve the quality of working life", June 23-27, Paliser Hotel.

Harrison Hot Springs, B.C.—A one-week event was held by the Canadian Labour Congress (Winter School) on "QWL as it Affects Labour", March 10-14, 1980.

Victoria, B.C.—The School of Public Administration of the University of Victoria, in association with B.C. Research of Vancouver, organized a conference on "The Redesign of Work" from March 13-15, 1980.

Parksville, B.C.—B.C. Research held a one-week residential course on "Job and Organizational Design", June 15-20, 1980 at the Island Hall Hotel.

Forthcoming Events

Toronto—First Global Conference on the Future: "Through the 80's:Thinking globally, acting locally" will be the theme of a conference to be held July 20-24, 1980,

organized by the World Future Society and the Canadian Futures Society. For further information please contact First Global Conference on the Future, Suite 1701, 1 Yonge Street, Toronto, Ontario, M5E 1E6. Tel. 416-361-1080.

Toronto—The Faculty of Administrative Studies at York University and the Free University of Berlin will hold a major conference on "Management under Differing Value Systems", York University, October 14-18, 1980. Contact: Dr. Klaus Weiermair, Assoc. Professor, Faculty of Administrative Studies, York University, 4700 Keele Street, Downsview, Ontario, M3J 2R6. Tel. 416-667-2532.

Toronto—A forum on the changing workplace and the changing meaning of work has been scheduled for the Ontario Science Centre in Don Mills on November 4, 1980. It's being organized jointly by the Niagara Institute and the Institute for Research on Public Policy. The forum is one of four day-long meetings in November, December, January and February sponsored by the Institutes on critical issues in the 1980's. Contact: The Niagara Institute, Box 1041, Niagara-on-the-Lake, Ontario, L0S 1J0. Tel. 416-468-2151.

Toronto—An international conference on the Changing Meaning of Work and Future Society is being planned for Summer, 1981 in Toronto. A national steering committee is presently being formed which will, in collaboration with the International Council for the Quality of Working Life, coordinate the design and planning of the conference. Further information will be given in the next issue of **QWL Focus**.

Niagara-on-the-Lake, Ont.—The Ontario Quality of Working Life Centre will be holding a joint Labour-Management seminar on the quality of working life in the Fall, 1980. The seminar will be an intensive, two-and-a-half-day residential event at the Niagara Institute. Contact: The Ontario Quality of Working Life Centre.

QWL REFERENCE

Selected Readings:

An Introduction to the Quality of Working Life

The Ontario Quality of Working Life Centre operates an information service which includes the distribution of information kits, brochures, etc., the performance of literature searches, and the publication of papers on QWL. For information contact: Janine Murray, Program Coordinator, Ontario Quality of Working Life Centre. Tel. 416-965-5958. The following articles are a sampling of some articles which introduce QWL. They are available free of charge from the Information Service.

Bluestone, Irving. "Human Dignity is what it's all about." In *Viewpoint*, Vol. 8, No. 3, 1978. pp. 21-24.

• Argues that QWL programs are essentially an extension of the basic goals of unionism and lists seven fundamental conditions which should prevail when QWL programs are implemented.

Cherns, Albert. "The Principles of Sociotechnical Design." In *Human Relations*, Vol. 29, No. 8, April 1976. pp. 783-793.

• Outlines nine principles of socio-technical design.

Davis, Louis E. "Optimizing Organization—Plant Design: A Complementary Structure for Technical and Social Systems." In *Organizational Dynamics*. Autumn, 1979. pp. 3-15.

• Social system design is implicit in technical system designs, but too often engineers ignore it and this results in a growing "mismatch" between the functions and processes of the technical system and the requirements of the social system. The article outlines a systems-based socio-technical design which involves joint optimization

of technical and social systems.

Davis, L. and Sullivan, Charles. "A Labor-Management Contract and Quality of Working Life." In *Journal of Occupational Behavior*, Vol. 1, 1980. pp. 29-41.

• Outlines the way in which a QWL program was implemented at a Shell Canada plant and focuses on the labor-management contract which resulted.

Emery, Fred and Thorsrud, Einar. "Appendix 1: A participative approach to the democratization of the work place". In *Democracy at Work*, international series on the quality of working life, Vol. 2, Editor-in-chief, Hans van Beinum. Published by Martinus Nijhoff Social Sciences Division, Leiden, 1976. pp. 158-177.

• Article describes concepts which aid in the redesign of jobs and then reports on the practical problems of organizing work-shops for re-designing work.

Guest, Robert. "Quality of Work-Life—Learning from Tarrytown." In *Harvard Business Review*, July-August, 1979. pp. 76-87.

• A case history of a QWL program at Tarrytown, N.Y., a General Motors car assembly plant.

Harman, Sidney. "The Transforming Influence of a Work-Quality Program." In *Advanced Management Journal*, Vol. 41, No. 1, 1976. pp. 4-12.

• Author discusses QWL project at the Automotive Division of Harman International Industries at Bolivar, Tenn. He outlines organizational changes and benefits to the company and employees which have resulted from increased employee participation.

La Berge, Roy. "The Shell Chemical Plant at Sarnia". In *The Canadian Personnel and Industrial Relations Journal*. Vol. 27, No. 1, Jan. 1980. pp. 12-20.

• A review of a case study by D.A. Ondrack and M.G. Evans of the University of Toronto which outlines the development of the QWL program at a Shell Canada plant from early planning stages to implementation of the program.

Reimer, Neil. "Oil, Chemical and Atomic Workers International Union and the Quality of Working Life—a Union Perspective." Reprinted from: *Quality of Working Life: The Canadian Scene*, Labour Canada, Winter 1979. pp. 5-7.

• Article outlines twenty years of OCAW work in QWL programs.

Taddeo, K. and LeFebvre, G. "The New Work Ethic." In *The Labour Gazette*, July, 1977. pp. 305-308.

• In their discussion of QWL, the authors focus on four values which they believe are essential to the success of QWL projects: security, equity, individuation and democracy. They then provide criteria for designing jobs in accordance with QWL principles.

Tripartite Steering Group: On Job Satisfaction. "Making Work more Satisfying."

• Article offers general guidelines in regard to job-redesign and points out potential advantages of adopting new approaches.

Trist, Eric. "Adapting to a Changing World." Presented at the 6th International Personnel Conference, Nov. 1977.

• Compares key features of old organizational paradigm with new QWL paradigm and argues that adoption of QWL programs are crucial for the survival of modern organizations.

United Auto Workers (UAW) Statement, May 15, 1979.

• The statement supports QWL in general, but warns that if QWL projects are to be successful, they must involve leadership of unions at both local and international level with full input from union employees directly affected.

United Steelworkers of America (USWA) Policy Statement on Quality of Working Life.

• Policy statement on QWL by United Steelworkers of America differentiates between QWL as defined by

employers and QWL as defined by employees. It emphasizes the role of the union in ensuring employees' rights and advocates a policy on QWL which ensures workers' rights.

Walton, Richard E. "Work Innovations in the United States." In *Harvard Business Review*. July-August, 1979. pp. 88-98.

- Examines work innovations in terms of a three-level conception which illustrates how techniques, outcome and culture relate to one another. He concludes that work improvement efforts that have both productivity and quality of work-life as goals are more likely to succeed than projects that stress one goal to the exclusion of the other.

New Journals

Journal of Occupational Behaviour (JOB)—A new quarterly, the Journal of Occupational Behaviour, began publication in January, 1980 and has issued three numbers to date, January, April and July. Articles of particular relevance to Canadian developments are those by L.E. Davis and C.S. Sullivan, "A Labour-Management Contract and the Quality of Working Life", vol. 1, issue 1, pp. 29-42; and by K.M. Srinivas, "Humanization of Worklife in Canada: Progress, Perspectives and Prospects", vol. 1, issue 2, pp. 87-118. JOB will cover such topics as innovations in job design, career development, retraining and retirement, and QWL. Enquiries: Subscription Dept., John Wiley & Sons Inc., 605 Third Ave., New York, N.Y. 10016, USA.

Network Notes—Network Notes, while not strictly a journal, is of particular interest to those interested in establishing and reinforcing the linkages between practitioners in the field. It is an occasional medium for dialogue amongst those involved in participatory democracy—at work, in education systems, in communities, etc. It is based on the contributions of people worldwide which are then copied and transmitted in an unedited version to subscribers. Each country is assigned a coordinator responsible for distribution and publicity of the Notes. In Canada contact: K. Srinivas, University of Regina, Regina, Saskatchewan, Canada. Contributions, however, should be sent directly to: Alistair Crombie, Center for Continuing Education, ANU, Box 4, ACT 2600, Canberra, NSW, Australia.

New Reports

- *Human Resource Management—Changing Times in Alberta*. Professor Terrence White has recently completed this report for the Alberta Department of Labour. Copies may be obtained from: Mr. L. LeClair, Director, Labour-Management Services, Alberta Labour, 9th floor, IBM Bldg., 10808—99th Ave., Edmonton, Alta. T5K 0G5.

- *QWL—The Changing Role of the Supervisor and QWL—Measurement and Evaluation*. Labour Canada's QWL Unit will shortly be publishing these two booklets in its series on QWL topics. Copies may be obtained from: Labour Canada, QWL Unit, Labour Canada, Ottawa, Canada, K1A 0J2. Tel. 819—997-2861.

- *Improving Productivity and Quality of Working Life in the Public Sector: Pioneering Initiatives in Labor-Management Cooperation*. This is a two-year study of ten public sector QWL projects in the U.S. undertaken on behalf of the U.S. Civil Service Commission by members of the Management and Behavioural Science Centre, Wharton School of Business, U. of Pennsylvania, (Principal investigator, Professor Eric Trist). Free copies may be obtained from: U.S. Office of Personnel Management, Office of Intergovernmental Personnel Programs, P.O. Box 14184, Washington, D.C. 20044, U.S.A.

Forthcoming Books

Canadian Experiences in Work Design—A casebook on work design in Canada is being prepared by an editorial committee composed of Eric Trist, York University, Faculty of Environmental Studies; Barton Cunningham, School of Public Administration, University of Victoria; Hans van Beinum, Ontario Quality of Working Life Centre; Terrence White, University of Alberta; and Brian Wharf, University of Victoria. A call for cases is sent out as per this issue of *QWL Focus*. Suitable topics include action research in organizational and job design. Contributions should be forwarded to: J. Barton Cunningham, School of Public Administration, University of Victoria, Victoria, B.C. V8W 2Y2. The deadline is November 15, 1980.

Research in Progress

Community-Economic Development in Sudbury, Ontario This project, under the direction of Professor Eric Trist of York University's Faculty of Environmental Studies, will achieve the following objectives: a. the accumulation and analysis of research data and information to contribute to the understanding of the community-based development process; and b. a study of the opportunities and constraints surrounding the development of QWL projects in the community.

Work Unit Linking Arrangements

This project, under the direction of Dr. Harvey Kolodny of the Faculty of Management Studies of the University of Toronto, will investigate the range of ways in which relatively self-managing work units are linked to the larger organizations in which they are imbedded and the contingencies, i.e. technology, that determine the adoption of one linking arrangement versus another. The study will be completed by September, 1980. The study is funded by the Ontario Quality of Working Life Centre.

Absenteeism and the quality of working life

A study of absenteeism in a 450-person, medium to heavy manufacturing plant in southwestern Ontario, is being conducted by Jeffrey Gandz and Alexander Mikalashki of the School of Business Administration of the University of Western Ontario. The purpose of the study is to investigate the relationship between a number of dimensions of the quality of working life in an organization and absenteeism and turnover within that organization. At the present time analysis of data is still underway, but the authors expect to have a completed monograph on the study by August, 1980.

QWL FOCUS

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Society
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Volume 1

Issue 2

March 1981

FOCUS

This issue uses the theme of 'starting up a project' as the major interest. This is not an attempt to provide a 'how to' manual, but simply to describe common elements in the start-up phase and identify critical questions which need to be understood and dealt with. The FOCUS section of the newsjournal deals specifically with the conceptual basis of starting up a redesign project. Inserted in the text are a series of quotes expressed by key people from actual ongoing projects. The FORUM section reproduces in more detail the various views and experiences of these people, thus providing an interesting balance to the theme of this issue—Starting Up Redesign Projects.

Starting up a redesign project

The beginning of a QWL project should be recognized as not simply the introduction of a new program, or the initiation of merely some 'other way' of doing the job but as a major commitment to becoming involved in a living process. Indeed, change and growth are so complex that the organization becomes involved in a continuous loop of action and reaction. The process is a living thing, something that has many facets, spreading in every direction. It cannot be conveniently restricted to some narrow confine. No matter how or where it starts, it will create change and growth throughout the whole organization.

Outlining the process or attempting to describe 'how to do it' is difficult, because there is no one 'recipe' for success of a QWL project. Each situation is unique and demands a tailor-made approach; together with a clear understanding by both management and union of the full implications of this fundamentally different way of organizing work.

Separate stages, in reality, are hard to isolate; the boundaries between stages are blurred by the flow of events. Nevertheless, from the very beginning key steps and issues can be recognized that will both occur within the particular stages of the project and continue to recur at unpredictable points during the growth of the project (see diagram).

It is of paramount importance that the union and management groups work through the process jointly and reach a good working understanding of each of the key steps and issues. Decisions reached or avoided will have significant consequences for the whole project.



Maintenance work on a hydrocracking unit reactor at Shell Canada.

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FOCUS *continued from page 1*

There will be certain issues, which centre around key factors for that particular project, that will continue to surface through the stages of the project. Such issues cannot be completed on a once-only basis. The organization needs to feel sufficiently comfortable with the ongoing process to be able to continue to deal with these recurring concerns. In the same way they must be able to handle the often stressful changes that may occur in initial aims and expectations due to the deepening understanding that each group develops as the project unfolds.

This section of the news journal identifies the main steps and key issues that have to be confronted during the start-up phase of a QWL redesign project. Not an exhaustive list, nor exclusive, the issues dealt with are, however, recognized as 'key' and the effective 'working through' of these issues is critical to the progress of any project.

The body of this section dealing with 'start-up' has been extracted from a longer paper: 'Stages, Steps and Critical Issues in the Development of QWL Projects in Existing Organizations' being prepared by Tom Rankin of the QWL Centre. In the Forum section that follows, QWL Centre staff member Janine Kitchen speaks with a number of people involved in on-going QWL projects about their experiences around some of the steps, stages, and issues identified in the introductory paper. It is interesting to note how closely the general points made in the paper are actually reflected in the real situations.

Developing a sense that things could be better

There is a wide range of concerns that might stimulate either management or the union to explore QWL: feelings that the skills and abilities of people are being under-utilized, that jobs are too boring or that workers are being overcontrolled by supervisors; concerns that communication via the 'proper' channels is often slow and distorted, that managers are always fighting fires and can't find the time to plan, that younger employees are not committed to the workplace; poor performance on indicators such as absenteeism, turnover, grievance rate and productivity; a general sense that the organization is not as effective as it could be, now or in the future.

It is usual during this step for some people to have read about innovative work arrangements that have been tried by other companies and unions. This often opens up the idea that there might be a 'better way'. A danger is that people may want to rush into a project and copy what is being done elsewhere, disregarding both the uniqueness of their own situation and the fact that QWL cannot be implemented in the same manner in which one plugs in a kettle. This often happens when QWL is being considered in order to help overcome a crisis.

Sometimes people will reject new approaches preferring traditional ways (better the devil you know) no matter how ineffective these ways have become. This is because people often prefer to hold on to a certain past rather than deal with an uncertain future. It is sometimes appropriate to link but not confuse the idea of a QWL project with previous developments in an organization such as the values underlying a management development program or the gains achieved by the union in collective bargaining. Coping with uncertainty is a challenge we all face every day. Significantly changing the workplace can either build this uncertainty to intolerable levels or help people learn to develop ways and means to adapt more effectively. This requires addressing people's fears as well as their hopes.

In non-crisis situations people often have a 'why bother' attitude, interpreting the suggestion that things could be better as a criticism of not only current practices but also their personal competence. Overcoming this attitude involves helping gain an appreciation not only of the changing demands the future will make on the organization but also of the need and will to actively shape this future rather than passively accepting whatever fate hands out.

Deciding on the use of a consultant

Many of the difficult issues involved in a QWL project can be worked through more easily with the help of a consultant, either internal or external to the organization. It is extremely important to get the right kind of people to fill this role. Above all, a consultant to a QWL project must understand and be comfortable with the difference between being a facilitator and being an expert. Whereas an expert tends to be someone who 'knows the answers', a facilitator is someone who works with people to help them find their own answers. It is essential that the participants in a QWL

QWL redesign project

a process

The boundaries between stages are not fixed. Some steps will recur within different stages. Sequence of steps are different in different projects.

Thinking about it

- Developing a sense that things could be better
- Approaching the other side
- Gathering information about QWL
- Determining what's in it for management and union
- Assessing the conditions necessary to proceed with a project

Doing it

- Assessing development of project
- Diffusing project and institutionalizing QWL
- Learning how to deal with unpredictable circumstances
- Recognizing re-emergent issues or problems and developing fresh strategies to deal with them
- Reassessing the 'what's in it' for union and management

- Deciding whether or not to use a consultant
- Designing a structure to carry out project (i.e. a joint union-management steering committee)
- Drawing up project guidelines
- Deciding where to start
- Approaching the site
- Setting up organization design task force
- Training in how to analyze current work situation
- Analyzing current work situation and implementing suggestions for change

Maintaining it

Living with it

A graphic representation of a QWL process can never really capture the essence of the actual life experience, but perhaps this model presents some of the ideas and flow of events in a manner that suggests the development of the project.

program really own the program themselves. They must take responsibility for working through their difficulties and learning from their own experiences. Too much dependence on the 'expert' will interfere with the learning which is essential in order for the program to become a healthy part of the on-going life of the organization.

For the consultant, the role of facilitator is not an easy one. He/she must continuously make decisions about when to

offer assistance and guidance and when to stand back and let people handle their problems in their own way.

The use of a consultant in a QWL project raises several questions. Who is the 'client' of the consultant, who chooses the consultant, who pays, how does the consultant's role interact with other people's roles, when is a consultant no longer needed? All of these questions need to be addressed involving as many

of the people affected as possible — including the consultant.

Approaching the other side

The first step is usually taken by either management or the union acting alone. The manner in which the initiators approach the other side will often create the whole tone of the ensuing dialogue. As the process itself requires much meaningful consultation between sides and as it is not possible for one side in

isolation to acquire the necessary know-how, the involvement of the other side must be recognized as an invitation to begin an exploration of QWL. Plans will come later, at this stage union and management need to jointly seek out not answers, but questions.

In terms of when and at what level to make the approach, it depends on the particular situation. There are several successful QWL projects which have developed out of decisions at the bargaining table, there are also cases where raising the question of QWL has been seen as a ploy, put forward to undermine the bargaining process. In some cases discussion between the two parties begins at the local level, e.g. plant manager and local union president; in other cases, discussion first takes place between more senior executives from both sides. In any case, both local and senior connections are essential.

Gathering information about QWL

In order to familiarize themselves with the values, principles and concepts underlying QWL, management and union can read articles and case studies, attend seminars and visit other organizations. By proceeding in a joint fashion right from the start, management and union can avoid some of the problems that may emerge (e.g. jealousy, feeling of being second-class citizens), when one side is 'out of sync' with the other or in a more powerful position as a result of having attained more information.

This does not mean that during this step or others management and the union do not at times act separately as well as jointly. Each will have different information needs and different sources of information. What is required is that management and the union both develop a shared understanding of the why and what of QWL, and a language for talking about the relevance of QWL for their own workplace.

A second issue to be noted during this period is the tendency to look at only the good side of QWL projects. Failures are rarely publicized and people ignore at their own risk the fact that engaging in QWL will require a fair share of blood, sweat and tears.

While visiting other sites provides an opportunity to learn how QWL concepts are translated into practice, there is a danger that people will spend an inordinate amount of time looking for the site with a set of characteristics which match those of their own organization.

Such a site does not exist. One must inevitably look at one's own situation.

"You have to develop your own ball game. You cannot transpose one set of conditions that have worked in one site to another site."

John Klauke, Polysar

Determining what's in it for management and union

This involves both sides spelling out and thoroughly discussing separately and together their expectations, including both hopes and fears, of a QWL project. Is it making the work-place more interesting, involving workers in the decision-making process, reducing unnecessary conflict, or all of these things? What about reductions in turnover and absenteeism? Is increased productivity an expected outcome? Often both managers and unionists who do not see increased productivity as a primary objective of QWL, do recognize the benefit of being able to improve organizational effectiveness as a by-product.

"We hoped that the company would end up with better productivity because if the company does better, we do too. It's much easier to negotiate when they have made lots of money than when they are broke."

Bill Burgess, ECW, Polysar

Is QWL seen as something to try in order to help overcome a short-term crisis but not as a fundamentally different way of organizing work and therefore to be abandoned when the crisis no longer threatens? The shared vision of QWL which will emerge out of this step will have significant implications for the strategies utilized in carrying out the actual project, the criteria for evaluation and the very meaning of the project for the various stake-holders involved in the project.

The key issue for management in this step is concern over loss of power. It is important that managers from both line and staff at all levels be involved in the deliberations. QWL is an organization-wide concept and its implementation is not contained to just the shop floor. It has significant implications for the roles of various managers and these implications should be discussed before initiating a project.

"The union entered into it with some degree of skepticism and a lot of caution and I don't think we entered

into it in any different way. In fact, with some managers, it was more than skepticism, it was clearly a pre-determined position to uphold traditional management practices. I think however, that there was a consensus on the part of management that if individual employees participated to a greater extent we would achieve more productivity."

Harold Giles, CGE

On the union side, major concerns include whether or not the adversarial relationship will be weakened and how the project might affect the relationship between the union executive and the membership, e.g. will the executive be seen as getting into bed with management?

"The basic relationship between the union and the company has not really changed- the union certainly is not reluctant to stand up and say that they are being hard done by, and at the same time, management is not reluctant to stand up and say that the union has too much control and we are not getting the job done."

Harold Giles, CGE

At what point should you proceed with the project?

In this step management and union assess whether or not certain conditions are present and strong enough to facilitate the development of a successful project. The final decision cannot be based solely on facts and figures; intangible factors play a crucial role.

Conditions include some level of real commitment from senior management and a degree of support from the national and/or international levels of the union.

"The thing that is needed is a total commitment right up to the leadership of the union and right up to the board of directors of the company. People have to be involved, they have to know what's going on and they have to support it."

Joe Fabian, Polysar

Commitment must be both sufficiently strong and widespread to survive the turnover of key participants from both union and management. When commitment to QWL is embodied in just one or two people, it is unlikely the project will be sustained in the long run. While the

best test of commitment is the willingness to commit resources, such as time, money and energy, commitment which is borne out of belief in the principles and values underlying QWL will be more helpful than commitment which arises from opportunistic short-term career interests.

Mutual trust and relative power are central issues in this step. If the trust level is low due perhaps to a history of management change proposals that never quite worked out as planned, this step and indeed the entire process to date will have been characterized by suspicion and a testing out of each side's motives. It is therefore necessary to allow time for both sides to work through these suspicions. If the joint exploration of QWL preceding this step has not built up sufficient trust, energy and resources must be focussed first on improving the union-management relationship. This can sometimes take a long time.

"I would suggest that some management-union relationships would not be conducive to quality of working life programs, and if that's the case, the first thing they would have to do is sit down and work out their problems."

Jim Heard, IFPTE, CGE

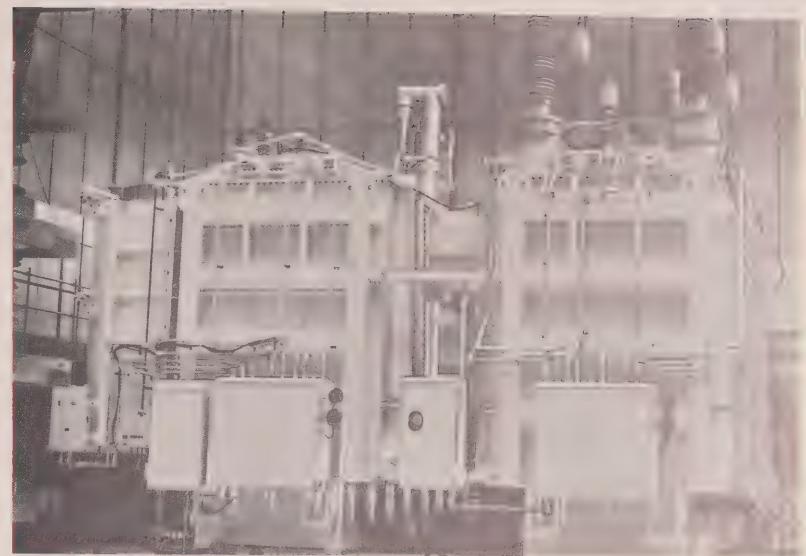
Programs such as relationship by objectives, labour management committees and union management intergroup processes are sometimes necessary prerequisites to launching a QWL program.

Finally, the more equal the power positions between the two sides the better the chances of a successful project. A management or union which is anxious about its own security or feels at a significant disadvantage vis-à-vis the other party in the adversarial relationship will be unable to give a project the attention and support it will require.

Deciding where to start

A QWL project can start in the entire organization at once, in several parts at the same time, or in a single area. While the choice of the entire organization requires a lot of resources and puts considerable strain on the organization and its people, it does get around the problem of later having to spread the successful experience of the 'pilot' project to the rest of the organization.

The issue of the spreading, or diffusion, of what has been learned in a part of the organization to the whole is also an



Giant power transformers built by Canadian General Electric Company at Guelph CGE and International Federation of Professional and Technical Engineers are jointly engaged in a QWL project at Guelph.

important consideration when choosing to start in several as opposed to a single site. While starting in a single area may allow management and union to focus their time and resources better and perhaps retain more control over the nature and speed of change, it does have disadvantages. Creating conditions in one part of the organization that makes it different from all other parts of the organization should be handled carefully. If one part of the organization is perceived as being granted favours and given special attention, feelings of resentment and envy can arise in the rest of the organization. If left unchecked such a situation will not only reduce the chances of success within the pilot project itself but also greatly decrease any chance that the other parts of the organization will be willing to learn from the experience of the pilot area. It is essential, right from the start of a QWL project, to give careful attention to the relationships between any pilot site(s) and the rest of the organization.

Despite issues of diffusion, practical constraints make it necessary for most organizations to begin their QWL project in a smaller part of the whole. There is a wide range of factors that should be considered when choosing a start-up site; which factors are the most important will depend very much on the unique characteristics of each situation. Certainly an over-riding factor in the success of the pilot project itself is the commitment of the key management and union people for the particular area. If the site manager and supervisors and area union people do not support QWL

and are not willing to be actively involved and provide leadership, chances of success are slim.

"Our top management are all for this project, right from the president down to our plant manager, but I don't think they have given enough vocal support to it. Middle management people, first-line supervisors, have not been involved and they feel that they will be left out. In hindsight, perhaps we should have started there rather than here with hourly people."

Bill Burgess, ECW, Polysar

On the other hand, a focus on later diffusion may lead to a very different choice.

"We said, if we want this to work, we want it to work everywhere in the plant, not just the easy spots, so we will try the hardest spot possible If it would work there, it would probably work anywhere."

Bill Burgess, ECW, Polysar

Another factor important to diffusion is the similarity of the site to other areas. If the pilot area is seen as unique because of certain characteristics, what is learned there may be rejected as being irrelevant for other locations.

In reality, consideration is usually given to both initial success and later diffusion when choosing a start-up site. Finally, whatever the basis for the choice, the pilot area should be one that provides real opportunities within it for making

some significant changes. It must actually be possible for everyone within the area to have a responsible and meaningful job. That is, within the area there must be some real responsibilities for significant decisions and a good variety of tasks which go together to make a recognizable whole piece of work.

Deciding on a joint union/management structure

In order to make sure that the project is owned and controlled by management and union, some type of formal organization is required. Management and union must decide what structure, i.e. set of relationships established to organize work will enable the project to be carried out most effectively. No one structure is ~~ach~~ has its advantages and disadvantages and depends on the situation in question. Structure can also change over

Often a two-level structure is established. The first level is usually called the steering committee and the second level, the organization design task force. The steering committee might consist of the ~~il~~ union executive and the plant manager and key members of his management team. Their role could include setting out the goals of the project, specifying project guidelines, providing ~~o~~ the people actually involved ~~ect~~, developing a project evaluation strategy, and relating the project to the organization. Membership on the two committees can overlap.

Drawing up the project guidelines

This step involves union and management drawing up an agreement that specifies the principles, objectives, guidelines, rules and constraints under which the project will proceed. For example, it could state that there will be no loss of pay or seniority by any worker, visitor and manager as a result of

"There are agreements that are necessary both orally and perhaps in some cases in writing—the kind of agreement that says that the parties will not amend the collective agreement during the process. I think it is necessary to have an agreement in principle as to what it is you mean in rather broad terms but at least enough to give you some direction."

Harold Giles, CGE

Agreements often include statements that express the values about people and organizations which are inherent in QWL. These agreements may outline the goals of the project, how productivity gains, if they occur, will be shared, the status of the collective agreement during the life of the project, termination procedures and a commitment that both parties will adopt a flexible problem-solving attitude to difficulties which will inevitably emerge.

It is important to note that this agreement is not cast in concrete, but is a working document which will require updating as the project evolves. It is also necessary to realize that while either side, by evoking a termination statement, may return the outwardly visible changes in some aspects of the project such as shift starting times, back to their original condition, less visible, but equally significant changes such as people's expectations of their job cannot be turned back in the same manner.

Approaching the site

Workers and supervisors in the site under consideration should have an opportunity to ask questions and discuss the QWL concept before making a decision on whether or not to proceed. The steering committee should feel comfortable in explaining QWL and answering any questions. The committee needs to pay attention to what words they use to describe the project. Referring to the project as an 'experiment', while conveying the message of an opportunity to learn, also evokes connotations of manipulation and control.

The workers and supervisors in the site under consideration should not be presented with 'an offer they cannot refuse' as it is often difficult to question, let alone say no to overtly enthusiastic company and union presidents.



An overview of part of the Polysar complex in Sarnia, Ontario. The Energy and Chemical Workers Union and the company are jointly engaged in a QWL program at Sarnia.

Finally, no matter how careful one is, it is sometimes inevitable that people's expectations will be raised to unrealistic levels. This can be minimized, but not altogether avoided, by forcing some discussion of the hard realities of implementing a QWL project.

"Generally people understand that these things take a long time, it is usually the younger employees who are more impatient. The more experienced employees certainly understand that everything in a big business takes a long time and they are not hard to convince. They take a more realistic approach to the thing. You cannot emphasize too much at the beginning that these things take a long time."

Jim Heard, IFPTE, CGE

Setting up the organization design task force

As mentioned earlier, a two-level structure is usually established to manage and

implement the project. The first level, as described earlier, is called a steering committee. The second level is often called the organization design task force.

Consideration must be given to membership and to the role of the design task force. In addition, the relationship between the steering committee and the task force must be carefully thought through.

As for membership, if the site is small enough, literally all workers, shop stewards and supervisors can be members of the task force. In cases where numbers preclude such participation it is wise to allow the workers to choose their own representatives and to ensure that other key stakeholders, such as the shop steward, supervisor and representatives of groups who service the site such as maintenance, are members of the committee. Recruitment of people for the task forces is rarely a problem when the key leaders from union and management communicate through their actions

the importance of the project. Criteria underlying the selection of members to both the steering committee and the task force include the principle that people's commitment is a product of their participation and that certain people because of their knowledge, power or status need to be involved in the project.

The role and mandate of the task force might permit it to analyze and generate suggestions for the redesign of the existing work system, but not include the authority to decide what can be implemented, the latter being the responsibility of the steering committee. In other situations, the task force can be given power to implement with the steering committee providing the necessary coordination and support.

For selected readings on starting-up QWL projects, see the REFERENCE section on page 21.

FORUM

The following interviews took place at two locations in Ontario where there are QWL projects in progress. These examples provide real life settings to illustrate some of the suggested stages and steps discussed in the FOCUS part of the news journal.

When reading the interviews, it is important to remember that each project is still very much in the 'infancy' stage. As was stressed in the FOCUS section each QWL project is both a complex and difficult process and is unique to the particular setting. Recognizing this, the participants in both projects have requested that our readers do not contact them directly.

The people concerned have generously agreed to share their experiences in these interviews and certainly do not want to be viewed, or called upon, as 'experts' by our readers. Should you want any further information or assistance, please do not call the project, contact the Ontario Quality of Working Life Centre directly.

What happens at the site

Interview with Jim Heard, QWL Internal Resource Person at CGE, and Harold Giles, Manager, Human Resources Development Systems section at CGE*

FOCUS: What made you first consider a joint union-management QWL program at CGE?

Harold Giles: First of all, we endeavoured to increase our own understanding of employee participation and to develop a relationship with the IFPTE, and the other unions. We started off on the same level of understanding as the union. We were going to some seminars on the quality of working life which we invited the union to attend with us.

At the same time, the company was in the process of buying a sophisticated computerized engineering design and drafting system. We looked upon that system as an opportunity to examine our total organization and our traditional practices of managing people and technology. We believed that the traditional ways of managing the technology and people would not lead to the most effective use of that computer system. It was the introduction of that technology that gave us the opportunity to identify a program.

The initial contact with the union was not on the basis of having a program per se but rather an increased level of understanding. We went to the union and had several discussions on some of the issues we had to face up to when we installed the system. We arrived at a consensus with the union that some of the issues were not going to be solved by doing the same things we had done before. We had a couple of sessions with Eric Trist and

then became aware of the QWL Centre and had our first joint session with Hans van Beinum.

FOCUS: On what were your initial discussions focussed?

Harold Giles: We focussed on two issues. On the one hand was the issue of human resources—how could we make people more satisfied with the jobs they are doing? On the other hand, how could we make people more effective allowing them to participate more in the job?

FOCUS: What stimulated the union to start thinking about QWL? Was there a definite starting point or did it just grow?

Jim Heard: I think the first exposure that the union had to it was when Harold Giles invited us to take part in a one-day seminar, part of which had to do with quality of working life. Hans van Beinum gave a short talk on some of the principles of QWL. We did some research and we found out what some QWL projects were about. Most of us were favourable to the idea and found at there might be some benefits that came from getting involved in QWL. Finally, I was asked by Jack Church, the Plant Manager, if I would participate in a project. We felt that we check out at any time and so we initially decided to cooperate and do it. Shortly after that Hans van Beinum and Jacquie Mansell came to and we had a rather thorough discussion about QWL. By that time we had some knowledge what QWL projects were about so we had lots of questions and from the answers we had from Hans van Beinum and Jacquie Mansell we decided to go with it and see where it would lead.

FOCUS: How did the union find out about QWL?

Jim Heard: Our main source of information was a pamphlet written by the UAW on QWL. They did not seem to be very innovative and we thought we could do better than that. We thought we could explore it in a more expanded way since their project appeared to be very limited in scope.

FOCUS: What were some of the things management expected might come from engaging in a joint QWL project?

Harold Giles: We looked for two outcomes. The first was that the technical system would be maximized. We would make effective use of the technology and



Jim Heard, IFPTE, CGE

the people, consistent with the collective agreement. We hoped that some of the human resource issues that flow from putting in new technology such as hours of work, pay systems, job security, and classification structures could be resolved for the benefit of the individual employee, the union and management. And again, there was a question of productivity.

You can't have a quality of working life program in one facility. The project has to expand in order to sustain itself. In order to do that, you must look at the total organization. It now seems apparent that the project will go beyond the drafting union into some of the non-union professional and clerical areas.

FOCUS: Did management have any reservations at the outset of the project?

Harold Giles: Well, Jim said that the union entered into it with some degree of skepticism and a lot of caution and I don't think we entered into it in any different way. In fact, with some managers, it was more than skepticism, it was clearly a pre-determined position to uphold traditional management practices.

I think, however, that there was a consensus on the part of management that if individual employees participated to a greater extent, we would achieve more productivity. It was the way to do it that was in question. Some typical questions that were raised were: "Does this mean that we will not have any more supervision?" "Does this mean that managers no longer will be able to manage in the traditional way in terms of planning and control?" The basic reason for having

managers and supervisors in the first place still remains in effect.

There was also some skepticism as to the degree of success we would have and our ability to take it beyond one small group.

FOCUS: What kinds of measurements have you used to evaluate the project at this stage?

Harold Giles: We made an initial assumption that we were not going to deal with it as a program but rather as a process. As a result of that, while we have some measurement point along the way, there is no absolute time schedule that has to be met to achieve success. We do measure what we have achieved and what needs to be done but it's more on a continual basis.

One thing you have to understand about Canadian General Electric is that we are a very decentralized corporation. Each business has a good deal of autonomy and what may work very well in our power transformer business in Guelph may not work very well in our businesses in Peterborough, Toronto or Trent. Both because of the kind of technology those businesses use and the kinds of traditional management styles in place, the kinds of unions in office, and the levels of understanding that exist. It is very difficult to plan in the normal traditional way because you find that when you accomplish one particular objective, you may have to back up and start over again. It isn't a linear kind of thing.

FOCUS: What was the union's reaction to management's proposal to start up a QWL project?

Jim Heard: When we first started talking about technological change in the form of computerized drafting, everybody thought it would replace the draftsmen. We had some experience with one system and found that was not the case; so we got over our initial fears in that regard. By the time the second system came in, the executive of the union had decided that the thing to do was get in on the ground floor and, as much as possible, run it. That way, we could gain some control.

We knew that a lot of our membership were apprehensive about the new computerized equipment because many of them are older and have been with the company 20 or 30 years. They have perfected their skills over that number of years and to have them start on some-

thing brand new would be difficult. We realized that we were going to have to convince people that they should participate.

At the present time, the supervisors in drafting are in fact excellent draftsmen. Probably that was one of the reasons they were chosen to be supervisors, but people are hesitant to ask them questions because they feel in doing so, they would be illustrating their ignorance and this fellow who has all this knowledge also has control of their standard of living. We thought if we could take the latter job away from them, then we could replace that with a teaching role. We have to convince the supervisors first of all that they might be better as trainer-teachers.

FOCUS: Why did the IFPTE engage in QWL?

Jim Heard: We thought that we could financially benefit these people by having them learn new skills. We also felt that draftsmen would become more valuable to the company if they had a wider variety of skills. The QWL project gives us a forum for airing our frustrations with benefits and with the job. There are a lot of draftsmen who have some very good ideas of how things should be done, but who have never in the past been given the opportunity to express themselves in that regard. We find now that a lot of people in the QWL project are expressing these kinds of ideas. In the past, that was management's job and we just did not worry about it. If they put us out of business, it was just too bad for them. That's not the case anymore. Most people are really taking an interest and feel that they can do things better and have some good ideas.

FOCUS: What about raising unrealistic expectations on the part of participants, whether management or workers?

Jim Heard: Generally people understand that these things take a long time. It is usually the younger employees who are more impatient. The more experienced employees certainly understand that everything in a big business takes a long time and they are not hard to convince. They take a more realistic approach to the thing. You cannot emphasize too much at the beginning that these things take time.

FOCUS: What were some problems that the union thought might arise at the outset of the project?

Jim Heard: Some people are against the project simply because it means change. There are other people who traditionally do not like a union executive to collaborate with management. As a union executive, we see no problem as yet of entering into this project. We have stated that if there is some benefit and it means changing our contract—we are more than happy to sit down and discuss it at any time.

FOCUS: What are some of the benefits which are visible at this stage of your project?

Jim Heard: One good thing which has come out of it is that the union and management have more opportunity to discuss things and consequently have become more comfortable with each other. I think that has lead to better problem-solving skills on both parts. When you get to know somebody a little better through more interaction, things work more easily. Traditionally, draftsmen don't have the opportunity to develop good communication skills. One of the ways they develop them is to take a position on the union executive where they have an opportunity to attend meetings and do a lot of talking. The QWL project also gives some of the employees an opportunity to do that more often and the more you do it, the better you become at it.

FOCUS: How did the union come to terms with the issues it faced when entering the program?

Jim Heard: We sat down and discussed QWL. We tried to envision some of the things that the company could be doing

to harm us through this program and how we would deal with them if they came up, but we came to the conclusion that if anything happens that the membership feels is detrimental to the association, then we can just stop the project. Ultimately, that's the key.

We certainly saw productivity as one of the company's prime concerns. We have had in the past numerous productivity-related programs. All of them have been complete failures. The big difference between this project and the others is that the others were controlled by the company. The QWL project is different in that it has to come from the people.

FOCUS: What were some of management's concerns at the beginning of the project?

Harold Giles: On the part of first-line supervisors, there was a concern that they would have decreased control and, as a result of that, since they are measured by how well their section is doing, their output might fall and consequently have a negative impact on them. I think that was true of some managers as well.

There also was a concern on the part of some managers and supervisors that by having the union involved we would be giving too much control to the union as an institution and the effectiveness of our procedures would be reduced. There was also concern that management's rights would be affected by having union participation. However, the basic relationship between the union and the company has not really changed—the union certainly is not reluctant to stand up and say that they are being hard done by, and at the same time, management is not reluctant to stand up and say that the union has too much control and we are not getting the job done.

FOCUS: How important was the introduction of new technology to getting the QWL project started? Was it a catalyst?

Harold Giles: I believe that you must have two conditions for an effective start-up. I think the first condition you must have is a business need i.e., you have to improve your results. You have to have some reason why you want to change the way you are doing business. The second thing you need is a sufficient number of disciples and a sufficient degree of receptivity on the part of management, unions and the individual contributors to accept that the way we manage has an impact on the way people feel and the success of the business.



Harold Giles, CGE

Tim Heard: Given what the union knew about QWL, we probably would have

been receptive with or without the new technology, but that was what brought things to a head. That new technology is really in its second phase. The first phase was less than successful because management was trying to run a business in the traditional way, but it was not the traditional kind of equipment. One of the issues became whether men traditionally have never worked shift and were very reluctant to do so. We got around that by

any guidelines to who might be interested starting up a QWL project?

Tim Heard: Sit down, identify an opportunity and go to it, recognizing that there may be some initial setbacks in the all part of the process. In my view you are not going to achieve that sense which is necessary to sustain it until the person at the bottom end of the organization can start to say his or her quality of working life is better than what it was before.

Tim Heard: Firstly, we would have to fine what kind of relationship exists between management and the union. It would suggest that some decent-union relationships would be conducive to quality of working life, and if that's the case, the first thing they would have to do is sit down and work out their problems. Until the union and management can sit down together and talk collaboratively about any issue, I don't think they should even think about getting involved in a quality of working life process. There has to be give and take on both sides, and if there is a history of confrontation there isn't a hope.

At the time of the start-up of the program, Tim Heard was President of IFPTE at CGE, and Harold Giles was Manager, Employee and Plant Community Relations.

Interview with Barry Hayton, Vice President North and South America, Rubber, Polysar.*

FOCUS: When did Polysar management decide to initiate a QWL program?

Hayton: The company had a terrible labour relations record during the late 50's and through the middle of the 60's characterized by a legalistic type of

approach to labour relations. In 1966 we decided to turn this around. A group of management people sat down and developed a labour relations policy which said we are adults and we intend to work in a businesslike way and share information with the union and workers. We also developed a philosophy that is still very fundamental to this whole approach. The philosophy is that people are responsible, can be trusted, and therefore we should provide opportunities for people to progress and learn as individuals.

We have operated in that manner and during the early to mid 70's we began to build some trust with the union—it takes time when you have had a bad relationship. As we became comfortable with one another, we began to explore with the union how to bring that philosophy right to the shop floor to get people involved and make it real. It is fine to talk about it and have it in writing but until it begins to impact on the guy who is operating the plant, it really does not have a lot of meaning.

We are going through a phase where there is a lot of retirement—so older people are flowing out and younger people are flowing in. We are also building a number of new plants here, we are expanding this operation, so there is an additional inflow of young people. They want to be treated as individuals and they want to have a say in how their work schedules are worked out. I don't think they are being unrealistic, and if we can design a work system that meets those expectations and entitlements, I think we will have a tremendous competitive advantage. That is what is driving me.

FOCUS: How did you go about trying to do this?

Hayton: It was during one set of negotiations that we made a presentation to the union saying there is an approach around that is consistent with our philosophy, why don't we take a whack at it. What we ended up with was a one-page letter which said, we are prepared jointly to enter into a QWL program.

We formed a steering committee and started a pilot project in our oldest plant—the plant where we had the worst labour and human relations problems and we have been working in that plant for the past three years.

I think there is only one real way to start up a QWL project. As management, you have got to take the first step, the first risk in order to demonstrate credibility and until you do that, you both tend to stand back and tentatively touch one another and nothing really happens. The other thing that happens is that there are a lot of people on this bandwagon. Companies and the unions have to be very careful because every company has its own characteristic individuality and there is no magic approach you could take from one company and apply to another. You have to feel your own way and do things that make sense to you.

FOCUS: Could you identify some key elements that should be present when starting a QWL project?

Hayton: If there isn't some base of trust already established there and if you can't sit down and talk with one another



Barry Hayton, Polysar

openly and honestly without getting emotional, then you must work on your relationship. The other thing is that both union and management should have an ability to sit on the other side of the table and have an appreciation of the other guy. You must be prepared to take risks. You don't go into this thing saying, I am going to get a million dollars, that's not the way it works. You really have to go into it and say, there are good people out there, they are responsible, they have needs which we are not meeting and let's get at it. Be prepared to take some novel approaches.

The other thing we did that I think might help people wanting to get into this type of program is that we set up a budget which we jointly administered—a quarter of a million dollars the first year. It's administered by the steering committee to send people on courses and so on. I think that's a visible demonstration that you are serious and also gives people the responsibility of spending and saving money. It's the steering committee's budget, not the company's.

FOCUS: Is there any one key thing that you have learned from the experience so far?

Hayton: There is just no recipe that you can transfer from one plant or one company to another. Each company and every bargaining unit is unique and you have to recognize that. It is a danger because there are some people who are selling a standard approach that supposedly is going to work for everybody.

* At the time of the start-up of the program, Barry Hayton was the Sarnia Site Manager for Polysar.

Interview with Frank Hubbard, Employee Affairs Consultant to Polysar.*

FOCUS: Can you describe how the QWL project at Polysar began?

Hubbard: At the time the project began I was in an elected full-time position as chief steward of the union at Polysar. Historically, the union and company have collaborated in a number of areas. For instance we had a very effective joint safety and health committee which was in existence prior to any legislation and a joint approach to solving the alcohol and drug problems of the hourly workers. We consulted daily with the

company and could get information when we requested it. In other words, we were operating in a very open environment.

During the 1977 negotiations somebody suggested that we get involved in QWL. We didn't have the faintest idea what QWL was. We knew that some of the multi-nationals were engaged in team-work programs. QWL has a pretty negative connotation for us, because these companies were using QWL to prevent unionization of the facilities. Initially, we didn't want anything to do with QWL, because if it could be used to prevent unionization, then it could probably be used for de-unionization.

We had a hard time, making a decision to become involved. When we did make the decision to become involved, it was done through a letter of understanding that would allow the negotiating committee for the union to study QWL. The only commitment we made was to become more familiar with QWL. We spent several months, talking to people from Steinberg's and the United Food and Allied Workers, and we sent some of our people, both union and company, to John Cotter programs (Ed. Note—an introduction program in QWL theory and methods) that were run in Toronto. We got films and books and tried to educate ourselves about QWL. The more we looked, the more we became convinced that we really didn't want to engage in a project because we felt we were already doing it through the collective bargaining process.

FOCUS: What were some of the union's major concerns?

Hubbard: We had some real concerns over the motivation of some of the line people in Polysar. We listened for key phrases in our dialogue such as "we should be able to improve productivity" and "the bottom line should be impacted". To us that is another form of manipulation. We spent about eight months running around in circles until we decided to take a little bite of this thing to see how it tasted. The company suggested that we take this "little bite" out of a place called Stereo which had a fairly good working relationship between supervision and hourly workers. Another suggestion was the new Styrene plant.

We suggested the Copolymer plant where our grievance case load was really high. The working conditions were deplorable and relationships very tense. We felt that if it would work there, then



Frank Hubbard, ECW, Polysar

the chances of success elsewhere would be pretty good.

FOCUS: What did you expect from the project?

Hubbard: We expected that we could reinforce the things that we had been doing for years anyway without calling them QWL. It was just a natural way to operate. We hoped that we could further develop the kind of relationship that we had begun with the company and at least in the short term solve some of the problems that existed in Copolymer. We really didn't like spending our time on grievances. There are many better things that we could devote our time to.

FOCUS: How did you deal with getting the support of the membership for starting the project?

Hubbard: Those that were against it said we were in bed with the company but we handled it by going to the membership. We told them that we could terminate it at any time. Any of the things the task force worked on that infringed upon the collective agreement would have to be authorized by the steering committee on which the union had equal representation.

Copolymer was about 30 years old and at that time there was talk of new technology that would have made it obsolete because financially it didn't contribute to the company. People were really nervous and the company reinforced that because they hadn't spent any money in upgrading and necessary maintenance.

FOCUS: Did the union have particular fears about its own role?

Hubbard: We never sat down and articulated it, but I think we wondered whether or not to allow the company access to the membership. We were afraid that some people would implement something that might be good for that small group but would be bad for the whole. We put in some checks that that through the steering committee would maintain the ultimate

*you revised your feelings
but you still need to*

Hubbard: I would suggest that if we had it over again, even knowing what we know now, we would say it was an exercise to be cautious and to let you know exactly what's fitting into, what you're going to do and what you're going to get

FOCUS: What kind of conditions need to be in place for a QWL project to develop?

Hubbard: One of the things that we talked about during that seven months was this animal called trust. We came to the conclusion that you really couldn't define trust. You really couldn't buy it. All you had to do was earn trust. I demonstrate it in the realities of the company. Does the company really deal with the goods when we ask questions? Do managers say one thing and do something else? Are there hidden agendas? Is there a sense of hiding behind that we are in opposition even though we had demonstrated that we could do a lot of things together.

One of the things that we pressed for related to power. What power boils down to in an industrial community is the ability to utilize funds. We spend a lot of time defining what sorts of power the task forces would have in the area of spending funds, without having to get approval. These committees weren't put together just to make recommendations. They were put together to effect change.

I think it's really important for trade unions to recognize also that, in an industrial setting and a corporate structure, there's a triangle with a base and an apex, and power rests at the apex of the corporate triangle. In the trade union movement, the triangle is inverted and really the Chief Executive Officer of a trade union movement or the President of a local union or the Chairman of a bargaining committee really doesn't have any power. The power rests with the base and that's the membership.

The role of a chief steward is to effect change through that power base. That's the reality that we work with. It isn't really a service organization, it's an instrument to effect the change that is requested by the membership.

* At the time of the start-up of the program, Frank Hubbard was Chief Steward ECW at Polysar.

Interview with Joe Fabian, Manager, Employee Relations Division, Polysar

FOCUS: Can you describe how the project was initiated at Polysar?

Fabian: Polysar first got involved with QWL in the 1978 negotiations. We were interested as a company in starting up something in terms of redesigning jobs. During the process of collective bargaining in March 1978, the union and the company exchanged a letter which in effect said that they would jointly undertake to examine the feasibility of work redesign or quality of working life project. The thrust behind that letter initially came from our site manager. Then both parties commenced the long process of talking about what they had in mind. The process was kicked off in August, 1978 when we actually signed an agreement to undertake this project. The agreement spells out in substantial detail just what it was that we were going to explore together.

FOCUS: What were management's reasons for initiating a QWL project?

Fabian: The general thrust behind our program is that if we dedicate ourselves to positively changing the work environment for employees, then as a very natural flow from that, they will in return contribute even more to their company and therefore to their own long-term livelihood and security. If you effect positive changes in the work environment,

then you'll see that productivity will spin off from those changes. Quite frankly, that's exactly what has happened.

FOCUS: What were some of the reservations you had upon entering the project?

Fabian: When you give people some responsibility and authority that they traditionally have not had, they may handle it well or poorly. So we did have some concerns. To deal with them, we developed an ongoing steering committee made up of members of management and the union local bargaining committee. That was done so that if there were any recommendations coming from the Copolymer unit, we would have an overview to ensure that nothing under the collective agreement between the parties would be violated and to review and approve proposed changes. In any union-management environment both parties have many sacred cows. We had to build up a fair amount of trust and respect between us. People who have been historically in an adversary position don't make this transition easily.

FOCUS: Did management have any fears about starting the program? If so, have they materialized?

Fabian: One of the negative aspects of the program is the question of what happens to the supervisor when employees have a very substantial input into how they do their work. We see the foremen as trainers or co-ordinators with an ultimate responsibility for seeing the work is accomplished.

FOCUS: What structures did you set up to guide the QWL project?

Fabian: We developed a central steering committee and task force in the workplace. We also established a facilitator to do three things—to facilitate the QWL process in general; to provide a link between what was going on in the plant and the steering committee; and to facilitate the process within the task force itself. The individual selected for the role was the manager of manpower planning and development. That role requires a person with both planning and interpersonal skills. The steering committee has been the power core and the group that prompts things to happen elsewhere. We get feedback from areas in the plant about changes that are being sought and as a steering committee, we assess them and then tell them whether or not to proceed. We have a system of recording everything that happens and from the record we are able to assess the progress being made.

FOCUS: How did you decide where to start?

Fabian: Our work force is spread out over many plants and activities, so one of the questions asked was "where do we start?" Do we start everywhere or do we take one piece, start there, and then spill over to the rest of the operation? Then of course, the question was, if so, which piece are we going to take? The decision that we made together as a union and company was to take what we consider the most difficult area in our operation to work in, and that was called the Copolymer area. It's a very old facility and not a very clean place to work. In spite of the facilities however, the people were loyal employees—loyal to both the company and their union.

FOCUS: Has the QWL approach been used in other areas of the operation?

Fabian: Yes, we're building a new Butyl plant. There is a task force in place that is involved in the total design of how work is going to be done in that plant, right from the date that the plant went on the drawing board. We feel that once we get going, many of the problems that we faced at start-up would have been

dealt with and that we are going to have a very smooth transition in the new plant. We also have another small plant that is being built and the same kind of task force is working there. The different work areas all want to get involved in task forces and start to examine their respective work areas. We see 1981 as being a year in which we will make a major thrust in spreading the program right through the operation.

FOCUS: What are some of the conditions you see as necessary to starting up a QWL project?

Fabian: The thing that is needed is a total commitment right up to the leadership of the union and right up to the board of directors of the company. People have to be involved, they have to know what's going on and they have to support it.

FOCUS: At this early stage in the project, have you seen any immediate benefits?

Fabian: When you have 2,000 people in a work place doing their respective jobs, they come from many backgrounds and they have all kinds of untapped resources. Normally, you never have an opportunity

to probe those resources. They never have an opportunity to demonstrate what they can truly do. While the program is not perfect, it is beginning to create the atmosphere whereby they can do things both for themselves, for the company, and for the union.

FOCUS: Have you learned any lessons from this experience which might be of benefit to others?

Fabian: I think you have to start with an operating philosophy and then you have to appreciate that there are great gains to be made by everybody through the process. Don't try to embark on the process on the basis that it is going to improve productivity because that is not going to work. It will work if you approach it from the point of view of trying to positively change the work environment for the people because then they'll give it back to you many times over.

I think the other thing that you need is the right people to start it off. You can't start up with people from both sides who are in very strong adversary roles. There has to be an appreciation that both sides are prepared to adopt change. If you don't have the right mix of people, it is not going to happen. The mix of people might start the project for entirely separate reasons. We are very fortunate at Polysar because both management and the union had a head start. They knew each other well and they started to build up respect for each other. I think you have to build up mutual respect and trust. It takes time, it takes a lot of meetings and it takes the ability on both sides to be good listeners. Once you build up respect and trust, things start to happen.

Interview with Bill Burgess, QWL Facilitator, Union Negotiator, Polysar

FOCUS: Would you tell me what your role is in relationship to the QWL project?

Burgess: As a union person, I was on the negotiating committee when they were introduced to the QWL project. The proposal was made jointly by the company and the union that there should be an hourly person fully involved in the QWL program and that happened to be me, so my title is QWL Facilitator for Polysar.

FOCUS: What were some of the union's expectations when going into the program?



Joe Fabian, Polysar

Burgess: What we hoped to get from it is the same thing that we have been fighting for for years; that is, a better place to work. We felt that this would give us a say in our jobs and our environment, a chance to make some of those decisions on what happens to us personally as far as work is concerned. That's something we have been trying to do as a union. Every union has always been trying to do that.

FOCUS: What were some of the union's concerns around entering the project? What about the negative side of participating in the project?

Burgess: We said if we want this to work, we want it to work everywhere in the plant, not just the easy spots, so we will try the hardest spot possible. That turned out to be the Copolymer plant. The people working there were very dissatisfied with the management of the place for various reasons. If it would work there, it would probably work anywhere.

The union was afraid that this was another one of those things that would start off with a bang and then fade out of existence through lack of backing from

top and middle management and the union. If those people aren't fully behind it and work to keep it going, it will fall flat on its face. I do not think we have the backing of the middle management people because they do not know what it is all about. They have been more or less left out in the cold. They were not involved as they should have been.

One of the things that we were and still are very much afraid of was that we will have less people in the long run. We hoped that the company would end up with better productivity because if the company does better, we do too. It's much easier to negotiate when they have made lots of money than when they are broke. But in the history of Polysar, the way that many of the managers raised their productivity was to cut people. It is pretty easy to increase your productivity if you cut out jobs and put out the same amount of product. That is a pretty quick way of getting productivity, and we were afraid that was exactly what they were going to try to do through this program. But they assured us in writing that no one will lose their job. We have a protection clause and that's good.

FOCUS: How did you feel the program might affect your relationship with your membership?

Burgess: We were sure that our membership would feel that we had sold out to the company and quite a few of them do. One of the reasons they do feel that way is because we did not explain ourselves very well. Our only real vehicle for explaining ourselves as a union is through union meetings and, of course, if people do not come to the meetings, they are not going to hear the story. We hope to alleviate that problem right away because we are setting up some programs to explain what QWL is. Hopefully, people will understand what we are trying to do and that it is not a sell-out to the company. On the other hand, the supervisors, first and second-line management, feel the same way about the company. They feel the company sold out to the union in this project. And they don't know any more about it than our rank and file. I think it is more a matter of not knowing what it is that scares people.

I have never felt that the union is in danger of disappearing because of QWL. The only thing that might build that kind of fear is that some places that have a QWL project are non-union and never were union. We have tried to organize these places and have been told by the people there that they don't need a union, 'We have got the QWL project'. I believe that the union will always have a place, in not just Polysar, but in the working world. I think it has to be there.

For a QWL project to work, there has to be a union. It might look good at first in a non-union plant but what invariably happens is management saying what the project is going to be without any opposition. You have to have a balance with the union saying "that is as far as you can go".

FOCUS: What kind of advice would you offer to a union wanting to initiate a QWL project?

Burgess: The first advice I would give is to go slowly. Don't be rushed into it, talk it over amongst yourselves as a union and with the company, asking every question you can think of and make sure you take all the time you need. If you are going into this, you have got to be prepared for a long session, even in start-up.

I would advise the union to make sure that the company has acquainted their middle and first-line management with



Bill Burgess, RWU, Polysar

what they are going to do. We did not do that. We found that if anything would kill a project, it's people fearing the loss of their jobs or their authority. Our top management are all for this project, right from the president down to our plant manager, but I don't think they have given enough vocal support to it. Middle management people, first-line supervisors, feel that they will be the odd man out. One of the things everybody says is that responsibility is being pushed down. Of course, they are all thinking, what am I going to do—that was my job before, to make the decisions. I would suggest to the union, if you believe in the project make sure your company involves everyone early.

I think we did not involve enough standard people. We went too fast even though we took six months... we should have read a little more about it. But I am talking in hindsight, which is pretty easy to do. Maybe you can't do it that way. To be involved you have to make mistakes.

Interview with John Klauke, Manager, Manpower Planning and QWL Co-ordinator, Polysar

FOCUS: Can you describe your role in the QWL Project at Polysar?

Klauke: My title is Manager, Manpower Planning and Development; I am also QWL co-ordinator which is a very ill-defined job. It ranges from being a 'gofer'; to being a negotiator, and a bridge between the various groups; to facilitating action, developing some cohesion and getting rid of some bottle-necks. As time has gone on, the relationship to manpower planning is becoming more and more evident because what goes on in the work place and how jobs are staffed and restructured, if at all, impacts upon training and staffing.

FOCUS: Why did Polysar management decide to start a QWL project? What were some of the conditions that were present at that time?

Klauke: The belief that there had to be a better way—the fighting and scrapping and tremendous waste of energy that went into fighting stupid battles was a waste of time. Everybody was the loser, nobody was the winner. With technology changing in the way it is changing, already we have seen some significant



John Klauke, Polysar

erosion of people's ability to relate to their jobs. They were getting boxed in and because of systems that had built up over the years, all it was going to do was get worse. You had to do something to at least try to change the environment. The other thing is the resources of the people out there. Because people were getting boxed in more and more they weren't having the opportunity to participate and have a say in their own jobs. That energy source or that source of information really had to be tapped. It was too valuable to let it just sit there and lie.

FOCUS: What were some of management's expectations of the project?

Klauke: We felt that if people were provided with the opportunity to become more involved in their job, increased interest would follow. We believe a specific result evolving from this would be a more productive work force. I think management has to be the initiator and they cannot be impatient for results. If you are looking for productivity to increase within three months, it won't happen.

FOCUS: Did you have some concerns that you thought might have a negative impact on management or management's role?

Klauke: There's no question that we've been brought up in the society in a work environment where things were very

rigid, highly structured, highly controlled. In many people I think there was a fear how in heaven's name can I be held accountable for something if I invite participation in that discussion or in that problem solving exercise of other people. Because the basic belief was that others were not as capable as I am in making the best decision. I think that was one of the basic fears of losing 'management control'.

FOCUS: Do you have any words of advice to offer to someone who is thinking about starting up a QWL project?

Klauke: You have to develop your own ball game. You cannot transpose one set of conditions that have worked in one site to another. Your guide must be the understanding of and commitment to the fact that people are basically good, honest, and want and need the opportunity to participate. They want to be respected as human beings, and they want to have some effect on the environment around them.

The past few months have been both active and rewarding for the staff of the Centre. It has been somewhat of a transitional phase, with the Centre both consolidating its existing programs, and initiating new endeavours.

Field projects

In the field project area the staff have been providing consultative services to some eight different ongoing projects including Ford/UAW at Oakville, Polymar/ECW at Sarnia and CGE/IFPTE at Guelph. The projects now cover all stages from beginning, implementation to sustaining a developed setting. The Centre is both consolidating its existing programs and initiating new endeavours.

Conference

Last October the Ontario Advisory Committee on the Quality of Working Life hosted a conference called "Perspectives on the Quality of Working Life."

"Perspectives" Conference was a meeting place of people, organizations, ideas, experiences and visions for working life within Ontario. It represented an opportunity for mutual

What's going on at the Ontario Quality of Working Life Centre

learning in a process involving changing working conditions, and new approaches to organizational effectiveness and industrial relations.

Those who participated in the conference were individuals representing organizations interested in the improvement of quality of working life in Ontario and currently active in the development of field projects. Participating organizations included:

Canadian General Electric Company Limited and the Draftsmen Association (International Federation of Professional and Technical Engineers)

Canwirco Inc. and the United Steelworkers of America

Eldorado Nuclear Limited and the United Steelworkers of America

Ford Motor Company of Canada Ltd. and the United Auto Workers

Miracle Food Mart and the United Food and Commercial Workers

Polysar Limited and the Energy and Chemical Workers Union

Shell Canada Limited and the Energy and Chemical Workers Union

The design of the "Perspectives" Conference is very much a reflection of the way in which QWL is understood and engaged in by the Centre, that is, as a process of ongoing interaction and learning by management, union and workers.

The key feature of the conference itself was the dialogue generated between participants in the QWL field projects and the Advisory Committee members and the sharing of information and experience between the different field sites which occurred during the afternoon workshops and throughout the day. That exchange provided an illustration of the various phases of field project development. In order to stimulate such a dialogue, perspectives on QWL from the points of view of management, government and labour were given in the morning session.

The perspectives given were that of Roy F. Bennett, President and Chief Executive Officer of the Ford Motor Company of Canada Limited; Tim Armstrong, Q.C., Deputy Minister of Labour of Ontario; and Bill Horner, Administrative Assistant to Owen Bieber, Vice-



From the morning session of the 'Perspectives on the Quality of Working Life' Conference, hosted by the Ontario Quality of Working Life Advisory Committee, are (left to right) Dr. Hans van Beinum, Executive Director, Ontario Quality of Working Life Centre, Mr. Roy E. Bennett, President and Chief Executive Officer, Ford Motor Company of Canada, Limited, Mr. Tim Armstrong Q.C., Deputy Minister of Labour for Ontario, Mr. Bill Dimma, President, A.E. LePage Ltd., Mr. Bill Horner, Assistant to the Vice President, UAW of America.



Participants at the 'Perspectives on the Quality of Working Life' Conference held last fall in Toronto.

President of the United Auto Workers of America. A personal perspective on QWL was given by Dr. Sidney Harman, President and Chief Executive Officer of Harman International Industries.

The speakers, and the participants, emphasized the issues which must be dealt with in laying the groundwork for a QWL project, starting it up, and sustaining it. In general, two major themes emerged from the discussions: firstly, the major importance of the role of first line supervision and middle management for sustaining change in the workplace, and secondly, the changing role of the union and the importance of leadership given by the union to QWL projects.

The Ontario Quality of Working Life Centre has published a booklet of the conference proceedings which is available from the Centre.

Education

Introductory Seminars:

Since the summer of 1980, the Centre has held a number of educational events serving the needs of the labour-management community and the public at large.

Since last October, the Centre and Cambrian College held a one-day introductory seminar on QWL in Sudbury, Ontario. The design of the day included an opening speech on "The Why, What and How of QWL" followed by small-group discussions focussing on issues raised by the talk. The afternoon session consisted of a series of workshops on those issues resourced by people with

practical experience in QWL, and a panel discussion.

Similar seminars were held in conjunction with the Centre for Industrial Relations of the University of Toronto, with Mohawk College (in November) for people in the Hamilton area, and in St. Catharines in January in association with Niagara College.

Socio-technical design course

From March 29 to April 3, 1981, the Centre is holding a one week course in socio-technical concepts and techniques for participants in active QWL projects. The course will be in Sarnia, Ontario, a community which already contains a high level of QWL activity. Although the Centre course is full, similar courses will be offered by other groups this spring. (See forthcoming events).

Union Education

The Centre recognizes the special role to be played by unions in QWL developments. It sees the need for education specifically directed at helping unions understand both the principles of QWL and their changing role in respect to promoting and fostering QWL in Ontario. As a result, the Centre has been developing, with the assistance and direction of its labour associates and staff, an educational program by and for unions. Centre staff have been active in recent months addressing various unions and labour bodies in QWL and the role of unions vis-à-vis QWL.

The B.C. Quality of Working Life Forum in October 1980 featured Norman Paxton, a National Representative of the Canadian Paperworkers Union and a Vice-President of the Ontario Federation of Labour on leave of absence with the Centre, as a speaker. The topic covered was "Trade Union involvement in QWL: how it can be achieved and why it is a necessary condition for the survival of the union movement."

The Centre will provide speakers and run workshops for unions or labour groups on request.

Supervisory and middle management training

Special training programs for supervisors and middle managers are extremely important within any QWL project because of the key roles they hold. They not only provide essential support to the QWL site itself, but also play a major part in linking the site up with the rest of the organization. Providing leadership within a QWL project often means having to change many of one's old views about what it means to "manage", in addition to learning new sets of behaviour.

In recognition of the importance of the role of supervisors and middle managers, the Centre has developed a model position of the principles of QWL, to use as the first step in a full program of supervisory training. The base model has been used in one of the Centre's field projects and the Centre is currently expanding on this model to develop more skills training programs for use in several other projects.

Publications

Dealing with Some Obstacles to Innovation in the Workplace, by Jacquie Mansell is the first in a new series of occasional papers published by the Ontario Quality of Working Life Centre entitled *Issues in the Quality of Working Life*.

As the title suggests, the paper aims to increase the understanding of the obstacles to change and to explore ways in which to overcome them. Obstacles identified are discussed in terms of three basic categories: need, motive, power and control. Copies may be obtained free of charge by writing the Ontario Quality of Working Life Centre, Ministry of Labour, 15th Floor, 400 University Avenue, Toronto, Ontario M7A 1T7.

CLEARINGHOUSE

Recent Developments

Canada

Potash Corporation—The Potash Corporation of Saskatchewan and its unions (which include the Energy and Chemical Workers and the United Steelworkers of America) have agreed to establish a Work Environment Board which will study all aspects of employee welfare. The tripartite board will include seven employee representatives and seven management representatives with two government members.

Productivity Forum—The Work in America Institute has established the Productivity Forum in order to expand the scope of its programs on productivity and QWL, and to provide for "continuing interaction among knowledgeable and effective decision-makers in business, labour, government education". Membership in the Productivity Forum gives organizations the fruits of insider working sessions, targeted symposia, arranged site visits around the world, personal contacts, access to a management information resource and the Work in America Institute's Productivity library. Further information on membership can be had by writing: The Productivity Forum, Work in America Institute Inc., 700 White Plains Road, Scarsdale, New York 10583, U.S.A.

Productivity poll—A recent Gallup poll for the U.S. Chamber of Commerce reported in the *World of Work Report* (Nov. 1980) says that "American workers are concerned with the declining rate of U.S. productivity and are eager to work with management to improve the nation's economic performance". Respondents felt that increased worker participation in decision-making was critical to improving worker attitudes—"eight out of ten said that more involvement in the decision-making process would be a definite incentive for them to work harder."

Steel industry contract—The new three-year basic steel industry contract signed by the nine largest American steel companies and the United Steelworkers of America has a quality of working life clause. An experimental program to deal

with local plant issues has been set up by the negotiators. At some plants they will establish 'labour-management participation teams' to solve problems or introduce innovative work practices without resorting to bargaining or the grievance procedure. The worker-management teams are expected to tackle the issues of productivity, morale, working conditions and, according to a union spokesman, the issues of 'dignity.'

Europe

Clearinghouse on the Quality of Working Life—Within the framework of its International Programme for the Improvement of Working Conditions and Environment, the ILO has established a Clearinghouse on QWL to support a network of institutions interested in QWL and to disseminate information on QWL. Plans for the clearinghouse include: a directory of QWL institutions; and the production of an information bulletin, bibliographies and fact sheets. For further information contact: George Spyropoulos, Chief, Conditions of Work and Life Branch, Working Conditions and Environment Department, International Labour Office, CH-1211 Geneva 22, Switzerland.

European Economic Council directive—The draft Fifth Directive of the European Economic Council (if passed) will require the harmonization of company law in each member state in the matter of participation by workers in the affairs of their companies and the mechanisms of industrial democracy. A possible mechanism being discussed is that of compulsory consultative councils elected by all employees including management, voting in secret ballot, empowered to consider all important board proposals for the conduct of the company.

Australia

Employee participation policy—The Department of Industrial Affairs and Employment has issued an "Employee Participation" policy, to encourage the voluntary adoption of employee participation in the form of improved communication, joint consultation committees and the redesign of work tasks.

Industrial democracy committee—The Government of New South Wales has created a Tripartite Standing Committee on Industrial Democracy to promote the development of industrial democracy; advise on possible government policies and programs to assist the private and public sectors; advise on legislation; recommend areas of research; and increase the effectiveness of the Work Advisory Unit.

Recent Events

Canada

Construction Industry Labour Relations—The University of Quebec at Montreal presented a conference on "Labour Relations Management in the Construction Industry—international perspectives" on November 3-4, 1980. For more information contact: Noel Malette, 514-282-4244.

Critical Issues forum—The fourth forum in the Niagara Institute/Institute for Research on Public Policy series on Managing Critical Issues, entitled "Upheaval in the Workplace", took place on March 3, 1981 at the Ontario Science Centre in Toronto. For information contact: Laurie Weber, The Niagara Institute, Box 1041, Niagara-on-the-Lake, Ontario, L0S 1J0. Tel: 416-468-2151.

Ergonomics seminar—The University of Guelph and The Industrial Accident Prevention Association sponsored a seminar on "Human Performance in Industry", December 11, 1980 in Toronto. The seminar examined approaches to reduce human error and stress in industrial systems and environments through ergonomics.

Human Factors and QWL—The title of the 1980 Annual Meeting of the Human Factors Association of Canada on September 4-6, was "Human Factors and the Quality of Working Life".

Industrial workplace design colloquium—A colloquium on industrial work places entitled "The design of industrial facilities for better conditions at work: architecture, ergonomics and accident prevention", was held September 25-27, 1980 at the University of Montreal. The colloquium was organized by the Faculté de l'aménagement de l'Université de Montréal in collaboration with l'Ecole Polytechnique and l'Ecole des Hautes Etudes Commerciales.

Perspectives on Management Development seminar—The Third Annual *Perspectives on Management Development* seminar was held at the Niagara Institute, November 11-14, 1980. The seminar focussed on the latest research on adult development to gain new perspectives on staff, management and organization development.

Policy Alternatives for Canadians—The Canadian Centre for Policy Alternatives (established with labour support) held its inaugural conference entitled *Policy Alternatives for Canadians*, December 13 and 14, 1980 in Ottawa. Topics for discussion at the two-day conference included: control of pension funds, modernization of industry, and the effects of computer technology on employment. The CCPA, established in Spring 1980, acts as a "think tank" on issues such as industrial development strategies, the future role of the public sector, regional economic development potential, and anti-labour practices in industrial relations. The Centre will produce a regular newsletter, *Policy Alternatives*.

QWL course—B.C. Research held a one-week residential course in productivity and the quality of working life entitled "Job and Organization Design", November 16-21, 1980 in Parksville, B.C. The course was calculated to provide participants with skills in using the socio-technical approach to QWL and knowledge of QWL experiments being carried on in Canada.

QWL seminar—The Ontario Quality of Working Life Centre and Niagara College's Institute for Labour and Labour-Management Studies held a one-day introductory seminar on QWL at the Parkway Hotel, St. Catharines, Ontario, Friday, January 23, 1981.

QWL course—John J. Cotter and Associates held a one-week course on Designing more effective organizations to improve the quality of working life in Toronto, March 16-21, 1981. For information contact: John J. Cotter and Associates, 11165 Valley Spring Lane, North Hollywood, California 91602, U.S.A., Tel: 213-762-7569.

Socio-technical Systems course—A new seminar on "Socio-technical Systems and the Quality of Working Life" was presented by Organizational Consultants, Inc. with William A. Pasmore and John J. Sherwood on March 4-6, 1981 in Chicago. The seminar was designed to increase participants' abilities to design

work using the socio-technical systems methods. Contact: Organizational Consultants, Inc., P.O. Box 3111, West Lafayette, Indiana 47906, U.S.A.

United States

OD Network Conference—The Fall Organization Development Network Conference entitled "Vision/Action" was held October 6-10, 1980, in San Francisco. The conference explored a central theme: the crucial issues, trends and developments of the 1980s and their implications for organization consultants, leaders, and members. Contact OD Network Conference, P.O. Box 6569, San Jose, California 95150.

Productivity Centre Consortium—The Regional Productivity Centre Consortium was held October 22-23, 1980, in Houston, hosted by the American Productivity Center. The goal of the meeting was to develop an effective information sharing/cooperation network between productivity and quality of working life centres.

Europe and the United Kingdom

Rewarding Work conference—"Rewarding Work" was the theme of the fifth conference in Amsterdam organized by the European Federation of Productivity Services and the European Association for Personnel Management on International Work and Pay. Further information on proceedings can be obtained from: VOA/nvp Conference Secretariat, van Alkemadelaan 700, NL-2597 AW, The Hague, Holland.

Bath/Tavistock conference—The theme of the 1981 Bath/Tavistock Exploratory Conference held January 14-24, 1981 was "Understanding and Re-direction in Organizational Life". Further information can be obtained from: G. Hutton, Centre for the Study of Organizational Change and Development, University of Bath, Claverton Down, Bath BA2 7AY, England.

Mexico

Applied Systems Research conference—The International Congress on Applied Systems Research and Cybernetics was held December 12-15, 1980. Its main theme was "The Quality of Life and How to Improve It". The emphasis of the sessions was on the practical use of systems research and cybernetics in improving the quality of human life in our society. Conference Proceedings can be obtained by contacting: Dr. George E. Lasker, Congress President, School of

Computer Science, University of Windsor, Windsor, Ontario, Canada N9B 3P4.

The Far East

Information Processing conference—International Federation for Information Processing—8th World Congress (IFIP Congress 80)—"Challenges of a Computer Presence" was the theme of this congress, held October 6-9, 1980 in Tokyo and October 14-17 in Melbourne, Australia. Proceedings may be obtained from: IFIP Congress 80, c/o IPSJ, Kikaishinko Bldg., 3-5-8 Shibakoen, Minato-ku, Tokyo 105, Japan.

Forthcoming Events



Canada

Human Values seminars—The Niagara Institute will hold a series of seminars on "Human Values in Organizational Life" beginning in Banff, February 28-March 7, at Niagara-on-the-Lake, May 8-15, June 5-12, Sept. 11-18, Sept. 25-Oct. 2, and Oct. 16-23; and Lake O'Hara, B.C., Sept. 27-Oct. 3. The seminars, organized around selections from literature in the humanities, social sciences and environmental studies, enable participants to explore the implications of changing values for their organizations and their own lives. Contact: The Niagara Institute.

I.A.P.A. Conference—The Annual Industrial Accident Prevention Association Conference will be held in Toronto, April 6, 7, and 8, 1981. Two presentations on QWL will be made by the Ontario QWL Centre, 3 p.m., April 6 and 9:30 a.m., April 8. For information contact: The I.A.P.A., 2 Bloor Street East, 24th Floor, Toronto, Ontario M4W 3C2.

Job and Organization Design course—B.C. Research is currently planning to hold its course on Job and Organization Design from May 3rd to May 8th, 1980. Possible sites for the course are Parksville, B.C. or Edmonton, Alberta. B.C. Research subsequently plans to hold its course regularly every year in the Spring and Fall. For information and registration information contact: Sue Burton, B.C. Research, 3650 Wesbrook Mall, Vancouver, B.C. V6S 2L2, Tel: 604-224-4331, telex 04-507748.

Management of Change workshops—Fromkin Van Horn Limited will be presenting a series of five workshops to be duplicated in Toronto and Calgary in 1981, designed to increase skills and

QWL AND THE 80's QVT ET LES ANNEES 80

The Canadian Council on Working Life
and The International Council for the Quality of Working Life

announce the First International Conference on the Quality of Working Life to be held at
the Harbour Castle Hilton Hotel, Toronto, Canada from August 30-September 3, 1981

This conference is for managers, workers, trade unionists, professionals and other
involvement in and committed to improving the quality of working life.

This is a shared undertaking of the Canadian Council on Working Life
and the International Council for the Quality of Working Life. The conference
will be organized and sponsored by a variety of government, business and
non-governmental organizations as well as that of a worldwide network of centres
and institutes dedicated to improving life at work.

This conference will be the first, large-scale, open, quality of working
life conference in the world. It is designed to:

continuing to refine the state of the art of QWL
breaking new QWL perspectives to interface with other areas
of QWL issues of the 1980's

Conference coordinators are:

Faculty of Management Studies, University of Toronto
Ontario Quality of Working Life Centre, Toronto

and theme coordinators are:

Lou Davis, James Taylor (U.S.A.), Norm Halpern (Canada)

Howard Rosenbrock (U.K.)

Dick Walton (U.S.A.)

Lyman Ketchum (U.S.A.), George Trepo (France),

(Norway)

In the Third World — Ratan De (India)

Labour and the role of agencies/centres — Hans van Beinum (Canada),

Alan Davies (Australia), Merrelyn Emery (Australia)

Inventing theory — Eric Trist (Canada)

Managing meaning of work — Jim Watson (U.K.)

Leadership — Dutch Landen (U.S.A.)

Industrial relations — Maurice Lemelin (Canada), Irving Bluestone

(U.S.A., U.K., Canada)

Training, technology and processes — Maurice Boisvert (Canada)

Changing roles of supervisors — Ernesto Poza (U.S.A.), Bill Westley (Canada)

Sharing, ownership and participation — Don Nightingale (Canada),

Peter Aitken (Canada)

Individuals and public sector — Neil Herrick (U.S.A.)

In addition to the themes, special presentations will be given on:

QWL and the 80's — Eric Trist (Canada)

State-of-the-Art — Albert Cherns (U.K.)

The international scene — Einar Thorsrud (Norway)

Labour's role in improving quality of working life — Irving Bluestone (U.S.A.)

Learning from new designs — Lou Davis (U.S.A.)

Inventing theory — Fred Emery (Australia)

QWL and leadership — Michael Maccoby (U.S.A.)

Quality of learning and QWL — Hans van Beinum (Canada)

A unique event

The conference is being designed as a working conference which will encourage a community of involvement on the part of the participants. An extensive pre-planned program of simultaneous presentations will co-exist with the less structured activities that are expected to arise.

Sessions at the conference will be in either of the two official languages of Canada: French and English. Simultaneous translation will be available for major conference sessions.

The conference will take place at the Harbour Castle Hilton and Convention Centre in Toronto, Canada. The cost of the conference is \$440 Canadian to participants and presenters alike. The registration fee for students is \$220 Canadian. A deposit of \$100 Canadian must accompany registration. The balance of the registration fee is required by July 31, 1981. Please make cheque payable to QWL and the 80's. Full refund will be issued if notification of cancellation is received by July 31, 1981.

Please address all inquiries to



QWL and the 80's
252 Bloor Street West
Toronto, Canada
M5S 1V6
Telephone (416)
968-2204

REFERENCE

knowledge in organization improvement and the management of change. Introduction to the socio-technical approach to organization development was held in Toronto, January 12-15 and Calgary, January 26-29. Organization Design, will be held in Toronto, May 11-14, Calgary, May 25-28. Team Building and Process Consultation Skills, Toronto, November 16-19, Calgary, December 7-10. Contact: Mary Baetz, Fromkin Van Horn Ltd. in Toronto.

Micro-Electronics conference—Labour Canada has rescheduled its conference (originally scheduled for November 17-18, 1980) on the "Impact of Micro-Electronics and Communications Technology on the Industrial Work Environment" to March 30-31, 1981, in Ottawa. For registration information contact: Elizabeth Humphreys, Women's Bureau, Labour Canada, Hull, Quebec, K1A 0J2, Tel: 819-997-1550.

Open College course—Commencing on January 6, 1981, Open College of Ryerson Polytechnical Institute will conduct a new radio credit course about people at work entitled "Psychology in the Workplace—People, Jobs and Organizations". The course is broadcast three times weekly on CJRT-FM 91.1 in Toronto. Topics covered will include: morale and productivity, transitional leadership styles, negotiations and conflict, and organizations and change. For further information contact: J. Wells, Open College, 297 Victoria Street, Toronto, Ontario. M5B 1W1, Tel: 416-595-5273.

Work in the Future conference—On 24th to 26th April, 1981, Ontario Federation of Labour will be holding a conference in Toronto on the subject of technology. One of the topics will be "The Nature, Quality and Structure of Work in the Future". For further information contact: The OFL, 15 Gervais Drive, Don Mills, Ontario. M3C 1Y8 Tel: 416-441-2731.

United States

Ecology of Work conference—NTL and the OD Network will be sponsoring two more "editions" of the Ecology of Work Conferences, in San Diego, April 8-10, 1981, and Baltimore, November 11-13, 1981. For further information contact: Tom Chase, Conference Co-ordinator, 67 Dover Point Road, Dover, New Hampshire 03820, U.S.A., Tel. 603-862-2018.

Europe and the United Kingdom

Participation symposium—The Industrial Participation Association plans to hold an international symposium in Vienna, the theme of which will be "Participation—A Joint Approach to Problems of Working Life in the 1980s". Tentative dates are November 4-7, 1981. Sub-themes include: participation in strategic and management decisions, participation in decisions at the workplace, and participation in ownership and rewards. Further information may be obtained from: Patrick Dolan, International Symposium Organizer, Industrial Participation Association, 78 Buckingham Gate, London SW1E 6PQ, Tel: 01-222-0351.

The Ontario Quality of Working Life Centre operates an information service which includes the distribution of information kits, brochures, etc., the performance of literature searches, and the publication of papers on QWL. For information contact: Janine Kitchen, Program Co-ordinator, Ontario Quality of Working Life Centre. Tel: 416-965-5958.

Selected Readings:

Starting-up QWL projects

The following selected readings deal with Starting-up QWL Projects. Further information on the articles mentioned may be obtained from the Centre.

Books and Papers

Goodman, Paul S. *Assessing Organizational Change: The Rushton Quality of Work Experiment. Wiley Series on Organizational Assessment and Change*. John Wiley & Sons, New York, 1979. The purpose of this book is to tell the story of the QWL experiment at the Rushton Mining Company. Part one of the book describes the Rushton setting and Part two provides a historical account of the change. It opens with the decision to participate, delineates the development and proposed experimental plan, then moves into the phases of implementation of the plan and diffusing it to the rest of the organization. The author discusses institutionalizing and sustaining change as well as critical issues in designing and implementing QWL experiments.

Mansell, Jacquie. *Dealing With Some Obstacles to Innovation in the Workplace*. Occasional Paper number one, *Issues in the Quality of Working Life series*, November 1980. Ontario Quality of Working Life Centre. This, the first paper in a series, aims to increase the understanding of the obstacles to change and to explore ways in which to overcome those obstacles. Obstacles are discussed in terms of three basic categories: need, motive, and power and control. Copies may be obtained free of charge from: The Ontario Quality of Working Life Centre, Ontario Ministry of Labour, 15th Floor, 400 University Avenue, Toronto, Ontario M7A 1T7.

National Employee Participation Steering Committee. (Australia). *Employee Participation Ways and Means*. This booklet, the second in a series launched by the Committee, represents the consensus views of government, employers and trade unions on the methods of introducing employee participation in the workplace and improving the quality of working life. The Committee believes it is not possible to lay down a step-by-step blueprint for introducing QWL suitable for every enterprise. The emphasis in "Ways and Means" is on providing guidelines about the processes which can be used to develop the most appropriate participative practices for the particular enterprise. A common thread in the booklet is that employee participation is not a technique or tool to be applied and withdrawn as desired; it is a process which has to be worked out seriously and which requires a good deal of time and effort. The booklet raises the question—Why be bothered? Why make the effort to introduce QWL? Copies of the booklet are available from: The Department of Productivity, Government of Australia, 339 Swanson Street, Melbourne, 3000, Australia.

ian. Gerald I. *A Guide to Labour-management Committees in State and Government* for U.S. Department of Housing and Urban Development. U.S. Office of Personal Management, Spring 1980. The purpose of the guide is to provide public sector managers and union officials with advice on how to establish, develop, maintain and evaluate a labour-management committee in state and local government. The guide should also be useful to those in the private sector since much of the advice offered is sufficiently general to apply to any kind of labour-management committee. Copies may be obtained from: Public Technology, Inc., 1301 Pennsylvania Avenue, N.W., Suite 800, Washington, D.C. 20004, U.S.A.

Trépo, Georges. *Les Nouvelles Formes d'Organisation du Travail: Comment les Introduire*. Cahier de Recherche No. 24/1974. Centre d'Enseignement Supérieur des Affaires/HEC-ISA-CFC-Internat. This 46-page paper discusses some of the reasons why change is necessary and some of the obstacles to be overcome in that connection. It covers some of the steps and issues to be encountered in the change process, and gives some case examples. In French. Copies may be ordered from: Centre d'Enseignement Supérieur des Affaires, 78350 Jouy-en-Josas, France.

Articles

Allegro, J.T. and de Vries, E. "Project: Humanization and Participation in Centraal Beheer". In *Working on the Quality of Working Life: Developments in Europe*. International Series on the quality of working life, vol. 8, International Council for the Quality of Working Life, Martinus Nijhoff Publishing, 1979, pp. 223-237. This is a case study of a "humanization and participation" project in a Dutch insurance company, Centraal Beheer. The study covers the background to the project and its goals, including a study of project feasibility; the change strategy chosen; and a description of the various phases of the project. Emphasis is placed on the learnings in the various phases which have a bearing upon issues in the start-up phase of any project.

Beer, Michael and Driscoll, James W. "Strategies for Change". In *Improving Life at Work: Behavioural Science Approaches to Organizational Change*, edited by J.R. Hackman and J.L. Suttle. Goodyear Publishing Company, 1977, pp. 364-409. To increase the likelihood that improvement in QWL will occur within organizations, we must better understand how successful changes develop. This article presents a broad conceptual framework for understanding the change process, and a broad range of options for creating change in the quality of working life. Areas covered are: patterns of successful and unsuccessful change; strategic considerations in managing change; and internal organizational strategies. The authors do not attempt to set out a prescription for change, but state that there are a number of viable strategies depending on the specific situation. They also comment that "the question of how to create change cannot be answered simply through a better understanding of the change process (but) depends equally on our values and on the position we occupy in relation to the issues or the institution in question."

Drexler, John A. Jr. and Lawler, Edward E. III. In *Journal of Applied Behavioural Science*, Volume 13, Number 3, 1977, pp. 373-387. This article describes the beginning of a quality of working life project in which the National Quality of Work Centre and the Institute for Social Research were involved. Topics covered are: entry process-achieving joint approval; core committee start-up; workplace start-up; joint site committee; consultant selection and activities. The implications of the

start-up experience in this case for theory and practice are discussed, including its illustration of some of the crucial structural issues that arise in large system change and the approach to reducing negative forces to QWL projects.

Lawler III, E. and Drexler, John A. "Dynamics of Establishing cooperative quality of worklife projects". *Monthly Labour Review*, March 1978, pp. 23-28. This article contains an analysis of the start-up and operation of union-management projects concerned with restructuring work based on a model developed by Kurt Lewin to explain the causes of individual and group behaviour in social settings. An examination is made of the forces encouraging and discouraging joint union-management projects that were present in 10 locations prior to start-up, and how the existing forces were altered to produce project start-up. The authors maintain that the findings of this examination can be applied to other workplaces, but caution that two opposing forces—length of time required for start-up and the possible impact of QWL projects on collective bargaining contracts—have not yet been sufficiently dealt with. They conclude that: "Until an approach is developed to deal with both of these forces, joint projects will probably be limited to those situations in which the conditions are relatively favorable, and strong forces favoring cooperation are present."

Lawler III, E. and Ozley, Lee. "Winning union-management co-operation on quality of worklife projects". *Management Review*, Vol. 68, No. 3, March 1979, pp. 19-24. This article presents the benefit of the experience gained in QWL projects of the American Center for Quality of Work Life and the Institute for Social Research. Suggestions are made, drawing from actual case experience, on getting projects started and creating conditions favourable to success. The authors identify barriers to start-up and forces that foster start-up and suggest ways to deal with both.

Mumford, Enid. "Participative work design: A contribution to democracy in the office and on the shop floor". *Working on the Quality of Working Life: Developments in Europe*. International Series on the Quality of Working Life, Vol. 8, International Council for the Quality of Working Life, Martinus Nijhoff Publishing, 1979, pp. 193-211. The case study described in this article took place in the purchase invoice department of a large engineering company which was involved in introducing a series of on-

line computer systems into its accountancy functions. The approach used by the author in this case has since been used in four different types of enterprises: a building products company; an insurance company; a bank and the engineering company. The case study is based on the areas of planning, preparing and implementing change and the problems and issues which surfaced during the process, particularly in the start-up phase.

Nadler, David, Hanlon, M., and Lawler III, E. "Factors influencing the success of labor-management quality of worklife projects". *Journal of Occupational Behavior*, Vol. 1, No. 1, January 1980. In this article, the role of organized labour in planned organizational change is discussed. A specific design for involving unions in cooperative planned change efforts is presented, and a model for predicting the success of that structure in different settings is developed. The model, based on an integrative bargaining framework, emphasizes the importance of ownership, project goals, consultant effectiveness, functioning of a cooperative labour-management committee, and organizational context. Data collected from participants in 16 labour-management change projects are analysed to test the model. The data are generally supportive of the model. Implications of the results for both practice and theory are discussed.



New Journals

Productivités—is a newsletter published six times a year by the new Institut national de productivité. The bulletin, published in French, covers international projects and events, with the emphasis on Quebec happenings. It also includes a calendar of events and book annotations. Subscriptions may be ordered from: Institut national de productivité, C.P. 157, Succursale "Desjardins" Bureau 1509, Montréal, Québec, H5B 1B3.

Worklife—the magazine of employment issues, is a new journal published quarterly in January, April, July and October, circulated throughout Canada. *Worklife* attempts to cover the whole range of employment issues through feature articles, news items, commentary, and book reviews. Subscription enquiries should be addressed to: Worklife, P.O. Box 2685, Station D, Ottawa, Ontario, K1P 5W7.

New Publications



Job Design and New Factories—by Brian Clifford—A review of the literature designed to bring to the attention of readers: 1) how companies have taken advantage of the development of new factories to improve the quality of working life; 2) the considerations which plant designers should take into account in designing new factories; and 3) the methods particular groups of designers have used to balance the social, economic and technical aspects in the workplace. (June 1980). Available from: The Work Research Unit, Almack House, 26 King Street, London SW1Y 6RB, U.K.

The Improvement of Working Conditions in Foreign Countries: Organizations and Methods Used in Different Countries: A survey—This 100 page report, comprised of a short introduction, thirteen country summaries and a 2-page list of each country's Productivity Association, is available in French from ANACT, 92126 Montrouge 16A Rue Barbes, Paris, France. For each of the countries information is provided on: i) description of current programs of action and their achievements; ii) principal areas of activity; iii) criteria used for the selecting and financing of projects; iv) organization of activities, financial aspects and current issues and problems. Countries studied include; Germany, Australia, Belgium, Canada, Denmark, U.S.A., Hungary, Ireland, Israel, Norway, Holland, U.K. and Sweden.

Microelectronics and the Quality of Working Life—by R.G. Sell, Work Research Unit, Dept. of Employment, WRU Occasional Paper 17, November 1980. This paper studies the effects of new technology in work structure and job design and on the process of change. It concentrates on the problems surrounding individual jobs entailed in the introduction of microelectronics and other forms of technology and is concerned with both the nature of that change and the way in which it is implemented. The paper concludes that the process is as important as the changes themselves and that full acceptance of changes can only be brought about by involving those most affected. Copies of the paper can be obtained from: The Work Research Unit, Almack House, 26 King Street, London SW1Y 6RB, U.K.

Perspectives on the Quality of Working Life—Proceedings of a Conference hosted by the Ontario Quality of Working Life Advisory Committee, October 15, 1980. This booklet contains the

edited transcript of speeches given by labour, management and government spokesmen at the conference. Copies may be obtained free of charge by writing the Ontario QWL Centre, Ministry of Labour, 15th Floor, 400 University Avenue, Toronto, Ont. M7A 1T7.

Productivity and the Quality of Working Life—Number 2 in the Work In America Institute's series, "Studies in Productivity". Focuses on the relationship between the improvement of the quality of working life and productivity, examining the impact of such programs as job design, employee participation, and others. Includes 58 abstracts of the literature and 76 additional sources. This volume and others in the series may be obtained from: Publications Department, Work in America Institute, Inc., 700 White Plains Road, Scarsdale, New York 10583, U.S.A.

Quality of Work Life in Context: What Every Practitioner Should Know—by Barry A. Stein, October 1980. This paper offers a framework for action and a checklist of ways in which productivity and QWL can be jointly increased. Copies may be obtained from: Good-measure Publication Service, 6 Channing Place, Cambridge, MA 02138, U.S.A.

Stress, Santé et Rendement au Travail—by S. Dolan and A. Arsenault with a preface by Hans Selye, this is the fifth number in the monograph series put out by l'Ecole de Relations Industrielles de l'Université de Montréal. The paper suggests a multidisciplinary approach to the study of the relationship between stress, health and productivity at work. For copies please contact: Ecoles de Relations Industrielles, Service de Publications, Université de Montréal, C.P. 6128, succursale "A", Montréal, Québec H4C 8J7.

Worker Participation: Success and Problems—by Hem C. Jain. Praeger Publications, 1980. The book reviews various worker participation schemes in practice in several countries. Canadian case studies include: the Canadian Experience with Labour-Management Committees; Union-Management collaboration at the Shell Chemical Plant in Sarnia; and Action Research at Mackenzie, B.C.

Workplace Democracy and Productivity—This report by Karl Frieden, issued by the National Center for Economic Alternatives, outlines and

luates four types of worker participation programs and a series of case studies, and concludes that both trade unions and company managers must adapt to changing conditions, i.e. greater work participation may lead to long-range health of the economy. The report may be obtained from the National Center for Economic Alternatives, 2000 P Street N.W., Washington, D.C., U.S.A. 20036.

Forthcoming Publications

The Ontario Quality of Working Life Centre—A Review of its Progress, 1978-1980—This report will detail the origins and development of the Centre from its establishment to the present. Publication is scheduled for early 1981.

The Quality of Working Life: An Annotated Bibliography, 1974-1980—

Published by the Ontario Quality of Working Life Centre. This bibliography includes annotated descriptions of articles, books and addresses and papers on the quality of working life. For copies please contact the Centre.

Quality of Working Life—The Strategy for Organization Development—by Hans van Beinum,

Director, Ontario Quality of Working Life Centre. This is the second Centre's series of occasional papers entitled "Issues in the Quality of Working Life". Publication is scheduled for early 1981. Advance orders may be placed by writing the Centre.

New Films

QWL Film from Labour Canada—An education and training film intended to communicate QWL techniques to managers, unionists and employees is currently in production at the National Film Board of Canada for Labour Canada. Advisory services were provided by Ecole des Hautes Etudes Commerciales in Montreal. Filming was done on location at four companies which have experimented with QWL including Tembec. The film and a number of French-language video-cassettes can be obtained by writing to: Mr. Yves Blanchard, National Film Board, 150 Kent Street, Ottawa, Ontario, K1A 0M9; Tel: 613-996-4957.

Research in Progress

How to Take the Quality of Working Life into the Design System—The French Ministry of Industry has formed a group of specialists to create a guide for electronic data and word processing systems on this question. A first paper of this project will be published shortly. Copies can be obtained from: Professor Georges Trépo, C.E.S.A, 1, rue de la Libération, 78350 Jouy-en-Josas, France.

International Comparative Study on Job Design and Automation—This study, being undertaken by the I.L.O. with the assistance of Federico Butera of the Instituto di Ricerca Intervento sui Sistemi Organizzativi in Milan, Italy, will result in an introductory review of the implications of automation for job design; case studies; a comparative analysis and the establishment of criteria and techniques for better work design during automation. For further information contact: Conditions of Work and Life Branch, Working Conditions and Environment Dept., I.L.O., CH-1211 Geneva 22, Switzerland.

Solutions for improving working conditions where jobs are repetitive and monotonous: trade union approaches and practical solutions—This project, undertaken by the Committee of Experts of the European Trade Union Institute, will cover new forms of work organization; longer work cycles and different aspects of working hours; new technological methods and management styles. It will also endeavour to describe the involvement and approaches of trade unions in Western Europe. A report on Italy is expected at the end of 1980. For further information contact: The ETUI, Boulevard l'Imperatrice 66 (Ble 4), 1000 Brussels, Belgium.

Call for Papers

International Federation for Automatic Control—A call for papers is being issued for the Eighth Triennial World Congress, IFAC/81 to be held August 24-28, 1981 in Kyoto, Japan. The theme of the congress will be "Control Science and Technology for the Progress of Society". One of the technical committees of the Congress is entitled the "Social Effects of Automation". Special topics of interest within that area are: human factors in process supervision, and production plants in the 80s. Papers may be submitted to: IFAC/81 Secretariat, Kinki Hatsumei Centre, 14 Kawaharacho, Yoshida, Sakyo-ku, Kyoto 606, Japan.

The Industrial Relations Research Association—is sending out a call for papers for its 1981 Annual Meeting, December 28-30, 1981. Three subject areas for papers include: i) relations between individuals and organizations seen from a behavioural, legal, sociological, psychological or cross-disciplinary perspective, ii) evaluations of the effectiveness of government programs re: human resource development and utilization, and iii) trade unionism in contemporary or historical terms. The deadline for submission is June 15, 1981. Contact: the IRRA Office, 7226 Social Science Building, University of Wisconsin, Madison, Wisc. 53706, U.S.A.



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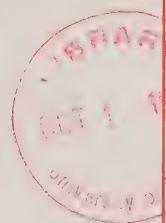
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August 1981

Organisational Choice and Micro-electronics

FOCUS



The multiple issues surrounding the growth of micro-electronic technology have generated a vast amount of writing, many of the observations, theories, and opinions expressed seemed to be based on few established facts and either great optimism or deep pessimism depending on the orientation of the author. The FOCUS section of the news journal, whilst acknowledging the presence of the unknown future with its potential concerns and fears, draws attention to the existence of data and past experiences that indicates how new technology can be implemented in such a way as to improve working life. The cautionary note is, of course, that the mere existence of a better way of organization has not, in the past, guaranteed its implementation. That organizational choice lies before us is clear. Whether we will make the right decisions in the future remains to be seen. Editor.

by Hans van Beinum

Unless technical systems are translated into tasks in a way which is in accordance with human needs and characteristics, we will create organisations which function far below their potential level of effectiveness. The question is therefore: what are the critical requirements of the technology and what are the characteristics of the human system?

one-man/one-task structure with exclusive external hierarchical coordination and control (i.e. the scientific management approach) is not the only way of designing jobs. Apart from the moral question of treating people as extensions of machines and the resulting alienation in the workplace, it is clear that it is an ineffective way of organising work in a world characterised by rapid



A general answer can only be given in terms of values and in terms of the principles of job design. The single most important development in the movement to improve the quality of working life is the awareness that within a given technology and within the economic objectives of an organization work can be organised in a variety of ways. In other words, *there is organisational choice*.

It has become evident that conventional work organisation based on fragmentation and segmentation of the work process resulting in the

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FOCUS *continued from page 1*

change and turbulence, a world in which organisations can only survive if they develop their competence for active adaptation.

To actively adapt, organisations must be flexible. Flexibility is based on a certain amount of redundancy or overcapacity within an organisation. There are two choices for handling the question of the redundancy of human resources.

Firstly, redundancy of parts, which means a hire and fire policy, which treats people as tools; or secondly, redundancy through increasing the range of response capabilities of the part or person i.e. redundancy of functions.

Choice number one is not only a wasteful and expensive use of human resources, but is also dissonant with our cultural values and with our understanding of the nature of man. Furthermore it leads to rigid, bureaucratic structures. On the other hand, choice number two treats people as beings who can and want to learn, thereby increasing their flexibility within the organisation.

The last three decades have provided us with many examples of organisational choice. We have selected three early cases in different countries and with different technologies as illustrations of organisational choice. These cases will be presented as short vignettes. For more detailed discussions the reader is referred to the literature.

1. Work organisation in British deep seam coal mining⁽¹⁾

This element of choice and the mutual influence of technology and the social system may both be illustrated from studies, made over several years, of work organisation in British deep-seam coal mining. The following data is adapted from Trist and Murray.

Table 1 indicates the main features of two very different forms of organisations that have both been operated economically within the same seam and with identical technology.

The conventional system combines a complex structure with simple work roles; the composite system combines a simple formal structure with complex work roles. In the former the miner has a commitment to only a single part task and enters into only a very limited number of unvarying social relations that are sharply divided between those within his particular task group and those who are outside. With those 'outside' he shares no sense of belongingness and he recognises no responsibility to them for the consequences of his actions. In the composite system the miner has a commitment to the whole group task and consequently finds himself drawn into a variety of tasks in co-operation with different members of the total group; he may be drawn into any task on the coalface with any member of the total group.

That two such contrasting social systems can effectively operate the same technology is clear enough evidence that there exists an element of choice in designing a work organisation.

However, it is not a matter of indifference which form of organisation is selected. As has already been stated, the technological system sets certain requirements of its social system and the effectiveness of the total production system will depend upon the adequacy with which the social system is able to cope with these requirements. Although alternative social systems may survive in that they are both accepted as 'good enough', this does not preclude the possibility that they may differ in effectiveness.

In this case the composite systems consistently showed a superiority over the conventional in terms of production and costs.

This superiority reflects, in the first instance, the more adequate coping in the composite system with the task requirements. The constantly changing underground conditions require that the already complex sequence of mining tasks undergo frequent changes in the relative magnitude and even the order of these tasks. These conditions optimally require the internal flexibility possessed in varying degrees of the composite systems. It is difficult to meet variable

⁽¹⁾Taken from: Socio-technical Systems, F.E. Emery and E.L. Trist, System Thinking 1969, edited by F.E. Emery.

Table 1
Same technology, same coal seam, different social systems

	A conventional cutting longwall mining system	A composite cutting longwall mining system
Number of men	41	41
Number of completely segregated task groups	14	1
Mean job variation for members:		
task groups worked with	1.0	5.5
main tasks worked	1.0	3.6
different shifts worked	2.0	2.9

Table 2
Production and costs for different forms of work organization with same technology

	'Conventional'	'Composite'
Productive achievement*	78	95
Ancillary work at face (hours per man-shift)	1.32	0.03
Average reinforcement of labour (per cent of total face force)	6	-
Per cent of shifts with cycle lag	69	5
Number of consecutive weeks without losing a cycle	12	65

*Average per cent of coal won from each daily cut, corrected for differences in seam transport.

Figure 1 Management hierarchy before change

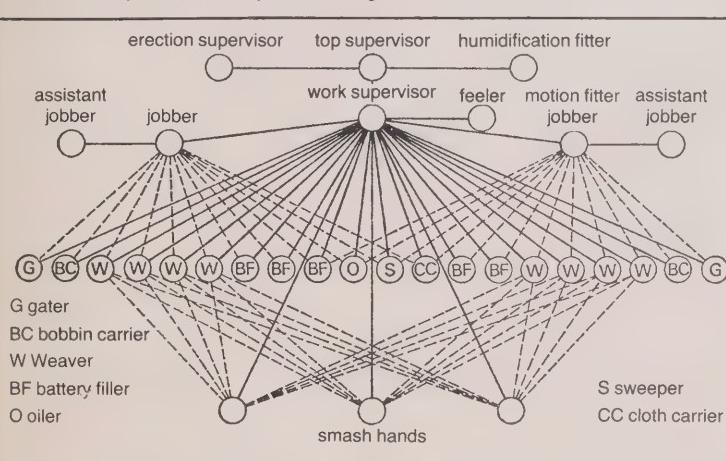
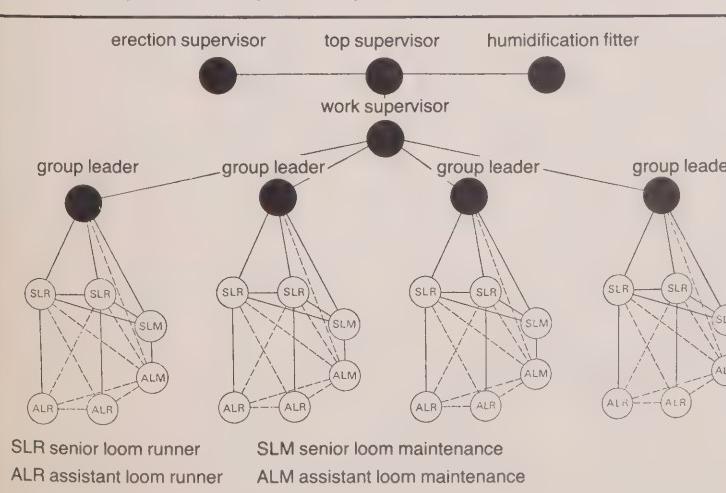


Figure 2 Management hierarchy after change



task requirements with any organization built on a rigid division of labour. The only justification for a rigid division of labour is a technology which demands specialised non-substitute skills and which is, moreover, sufficiently superior, as a technology, to offset the losses due to rigidity.

2. Experimental studies in textile mills in Ahmedabad, India⁽²⁾

These studies deal with the question of coordination and control on the shop floor and the role of the supervisor. It shows how increased coordination and control by workers on the shop floor in natural socio-technical work units will cause the appropriate content of the role of the supervisor to emerge.

Role of supervisor and task of work group

Definition of a supervisor role presupposes understanding and analysis of the requirements of the work system for control and co-ordination. Furthermore, a supervisor should be able to perceive readily what is needed and to take appropriate measures. As his control will in large measure rest on his control of the boundary conditions of the system—those activities relating to a larger system—it will be desirable to create 'unified commands' so that the boundary conditions will be correspondingly easy to detect and manage. If the unified commands correspond to natural task groupings, it will also be possible to maximize the autonomous responsibility of the work group for internal control and co-ordination, thus freeing the supervisor for his primary task.

A graphic illustration of the differences in a supervisory role following a socio-technical reorganization of an automatic loom shed can be seen in the two figures; Figure 1 representing the situation before and Figure 2 representing the situation after change.

This reorganisation was reflected in a significant and sustained improvement in mean percentage efficiency and a decrease in mean percentage damage.

⁽²⁾For further reading see: A.K. Rice, 'Productivity and Social Organisation, The Ahmedabad Experiments, Tavistock, 1980's.

The significance of the difference between these two organisational diagrams does not rest only in the relative simplicity of the latter (although this does reflect less confusion of responsibilities) but also in the emergence of clearly distinct areas of command which contain within themselves a relatively independent set of work roles together with the skills necessary to govern their task boundaries. In like manner the induction and training of new members was recognised as a boundary condition for the entire shed and located directly under shed management instead of being scattered throughout subordinate commands. Whereas the former organisation has been maintained in a steady state only by the constant and arduous efforts of management, the new one proved to be inherently stable and self-correcting, and consequently freed management to give more time to their primary task and also to manage a third shift.

3. A Socio-technical field experiment in job design and work organisation⁽³⁾

study carried out in the Postal, Cheque and Clearing Service of the Netherlands Postal and Telecommunications Services.

This study was carried out in the punch-card division of the Netherlands Postal, Cheque and Clearing Service in 1965.

The experiment concerned the content of the relationship between the employee and his job. Its purpose was to study the various elements determining this relationship in their mutual dependence. The central issue was an attempt to test, by way of a field experiment, to what extent the complementary properties of the social and technical factors could be realised by means of a new job design.

The study was carried out in one of the clerical centres. These decentralised departments perform various clerical, card-punching and control operations as an input for the computer operations. The tasks are very much routine and require no specific skills and are chiefly performed by young women.

The following data gives information about the technical and social systems of these centres:

- specialisation of operations and homogenous individual jobs. Little job variation;
- spatial separation of the various stages in the production process, meaning that the various job elements are performed in separate rooms;
- the individual jobs are predominantly independent. They do not require cooperation between the members of one working group, or between working groups;
- the employees hardly know how they perform work. There is insufficient feedback of results;
- the design of the production process requires exclusive external supervision. There is very little

opportunity for control within the working group;

- the design of the production process is not very flexible;
- there are adjustment problems between the various stages of the production process;
- machine capacity is under-utilised when a working group is not complete.

The employees in these centres had some significant complaints about the job. They stated that the work was not varied enough. They did not feel much involved in the work and showed little interest in it. The intrinsic job satisfaction was strikingly low. Labour conditions, wages and fringe benefits on the other hand were judged positively. Especially the favourable working hours and wages were mentioned as attractive features.

Figure 1, the workflow before introduction of the experimental changes

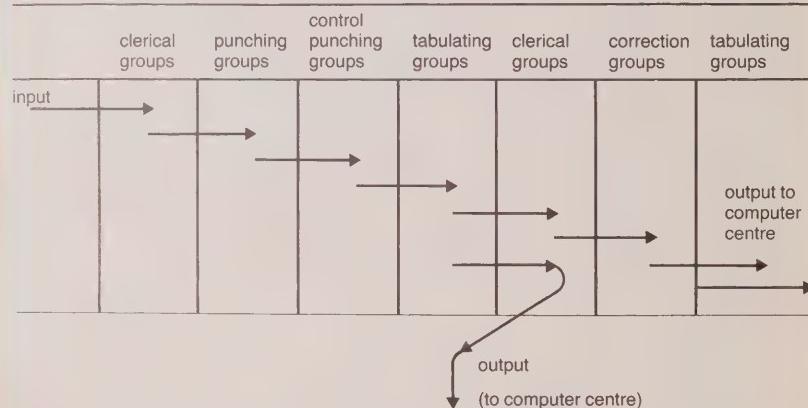
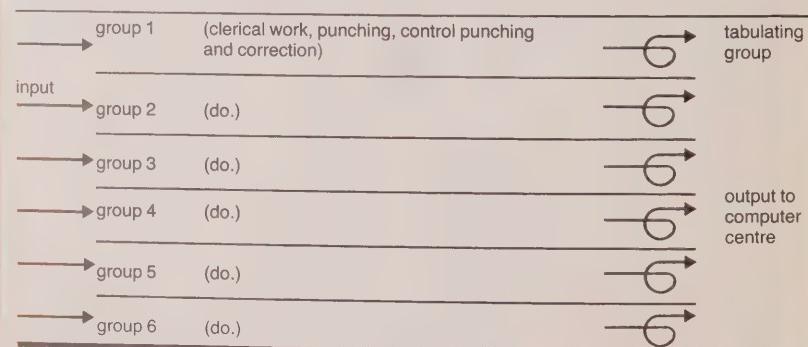


Figure 2, workflow after introduction of the experimental changes.

A = workflow when corrections are needed;
B = workflow when no corrections are needed.
A continuous line between groups indicates spatial separation.



⁽³⁾Taken from van Beinum, H. 1977, van Gils, M.R. and Venhagen, E. 1969.

Figures 1 and 2 show the organisation of the workflow within the experimental centre before and after the introduction of the new form of work organisation.

The new design of the production process gave the following results:

- the degree of variety in the work has increased. The employees are involved in all the tasks, unlike under the old system when they were entrusted with only a partial aspect of the overall process. The increased variety of the jobs was the result of creating group tasks and job rotation. The content of the various individual operations has not been changed.
- the overall work cycle, consisting of a series of tasks related in time, is now being handled within one group. As a result, the work is now easier to oversee in its entirety. Employees now learn how the various operations fit together, how far the work has progressed, how many mistakes have been made, etc. One develops now a picture of both the quality and the quantity of the work.
- the individual and group responsibility have increased. The way the work progresses has now become largely the employees' own responsibility. This responsibility is demonstrated by the way in which the members of the group decide the rotation of operations themselves, the manner in which they decide on the speed of production by means of use of punching and control machines, and deal with the control of quality of the work.
- there is a group with a group task and individual members can see how they contribute to that task. However, to reach the group target, cooperation between group members is required. Under the old system everyone worked individually.
- as a result of the new organisation, the accent of the group chief's functions has been shifted from job centred supervision to a more coordinating role.

Old system	New system
Single individual tasks	'Complex' group tasks Single organisation
External control	Internal control
Some significant outcomes of the change are given in the following tables.	

Table 1, opinion on the experiment (experimental centre)

	workers	chiefs
prefer new job organisation	53 (88%)	6
no preferences	4 (7%)	0
prefer old system	3 (5%)	0
	60 persons	6 persons

Table 2, index numbers for output per hour (average for 1st quarter, 1965 = 100)

	experimental centre			control centre		
	Oct.	Nov.	Dec. '65	Oct.	Nov.	Dec. '65
total of all activities	110	116	122	100	100	104

A comparison of the old system of work organisation with the new one shows that the new system led to a drastic change in the design of the experimental centre. The existing machinery had to be regrouped, groups had to be composed, and staff trained for the new operations. The punchers and control punchers had to be trained in the various kinds of clerical duties. The clerical staff had to be trained to operate the punching and control machines. The chiefs too, had to learn about coordination of operations, in which previously they had little or no experience.

The three examples given are only a very small sample of the many cases developed over the last 30 years all over the world illustrating the meaning of organisational choice for the quality of working life.

The way in which the jobs are designed and the work is organised will determine whether or not we will experience human dignity at work.

The degree to which the meaning of socio-technical system characteristics of work organisations has been understood and accepted will be severely tested by the way in which we are able to work with and respond to the developments in the field of micro-electronics.

Will we be able to understand, identify and make use of the opportunities for making organisational choices when introducing micro-processors in our work system?

The micro-processor is a revolutionary development. It is a logical product of a world characterised by rapid change and at the same time a major contributor (at least potentially) to the turbulence in our environment.

The profound impact the micro-processor will have in our daily lives is the result of two major developments.

The first is the breakthrough in semiconductor manufacture which has made it possible to put tens of thousands of circuit elements on a simple piece of silicone. For the last 8 years the capacity of available memory chips had quadrupled every two years and memory densities are expected to continue to increase by a factor of four every two years through 1985.

The exponential increase in memory and processing capacity corresponds with an equally dramatic reduction in costs.

The second development has to do with the form of organization of circuit elements represented by the micro-processor itself. The micro-processor is a general purpose device providing 'intelligence' at low cost to virtually any application.

The combination of enormous memory and processing capacity, low costs, its tiny size and universal applicability makes the micro-processor a technology which will invade all spheres of life and which will have a radical impact on the work process,

on job design, on work organization and therefore on the quality of working life.

Whether in the decades ahead we will hail the micro-processor or curse it will depend on our ability to manage history, and our collective competence to make choices.

The intellectual, social, organisational and societal implications of micro-electronics are not very clear at this moment.

Questions about the impact on our economy and about mass unemployment are uppermost in the minds of many. There are very serious concerns about the possibility of major shifts in the socio-economic structure of our society.

Unless the major stakeholders—management, labour and government—are actively and jointly involved in study, evaluation and policy-making on national as well as provincial and local levels, there is the distinct possibility that the process will run out of control.

Our present preoccupation, justified as it is, with the broad societal issues, however, does not help us with the design of work systems where the use of micro-processors are part of the technology. It does not prepare us for the opportunity of organizational choice nor does it confront us with values underlying job design. The socio-technical characteristics of work have shown us that the decisions about the applications of micro-processors in production systems will not be merely technical but socio-technical judgements in which the notion of organizational choice is from the very beginning an essential part of the design process.

It is a matter of concern 'that the designers of new technologies dependent on computers and telecommunications belong to engineering disciplines far removed from socio-technical considerations. Unless educated to the contrary, they will follow the technological imperative and mortgage a good deal of the future.' (Trist, 1981).

Will the new technologies be used as extensions of operators who will have wide responsibilities and discretions, or will humans become mere extensions of the technology?

The applications of micro-electronic technology to small batch engineering production suggest that there is a possibility of turning such production into an integrated process industry.

The use of computer aided design systems (CAD) which do more than convert numerical calculations rapidly into drawings, but which also draw up manufacturing specifications and prepare tapes for numerically controlled machine tools will lead to a level of integration which obviously has enormous implications for the design of jobs.

The big issue is that with the micro-electronic technology there will be many possible ways of distributing information, control, coordination and initiatives between operators, supervisors and machines. It is a matter of choice.

The new technology has the capacity for both centralisation and decentralisation. It can be used to enhance the quality of working life and to further the democratisation of work or it can be used to increase centralised coordination and control.

The most dramatic development of micro-electronics is at present in the office. The introduction of word processing machines has confronted us with the new revolution in written communication technology. It is to be expected that the sophistication will continue to increase rapidly. Not only will word processing systems become faster, more flexible and more powerful but eventually they will be linked with other communications media, such as electronic mail, telecommunications and computer aided design.

The crux of the matter is that organisations engaged in the application of micro-technology to information handling and to linking and combining various functions, are engaged in a process which is not sequential but contextual. They engage in social architecture, they design and build environments—environments which will either give people opportunities to develop and handle responsibility or will reduce them to objects and tools.

The micro-processor therefore creates a new organisational shift. In the past organisations did not use computers, individuals did. This phase was followed by an era in which the

organization started to discover the computer but used the new technology only for limited and specific functions. The number of individuals who had any dealings with the computer was still small. The revolutionary micro-processor with the possibility of 'a terminal on every desk' will create a leap into 'total organisational change and design'.

Consequently the notion of organisational choice has to be understood in terms of *total* organisational choice. The micro-processor will shift socio-technical concern from the micro to the macro level.

Is the thinking and practice in our organisations and in society at large ready for the choices which have to be made?

Micro-electronics offers us opportunities to design jobs and organise work in accordance with the values of the quality of working life in a way that no other technology in industrialized society has done in the past. It provides us with real opportunities to enhance and rediscover human dignity in work on a scale which has heretofore been impossible.

Fred Emery, in 'Communications for a Sustainable Society, Year 2000' (1980) states the issue as follows:

'The fundamental questions we must ask, if communications are to be a godsend and not a drag on our attempts to create a sustainable society, are:

Does this just improve our means of commanding people at a distance or does it better enable people to mobilise the resources they need to make better decisions about their problems?

Does it strengthen design principle 1, with an ever-increasing specialisation and redundancy of the individual parts, or does it strengthen design principle 2, toward the man-of-many-parts who is rarely at a loss to be useful?'

FORUM

This section contains some interesting reports on the introduction and implementation of microtechnology within office settings using socio-technical type approaches to the reorganization of the work. It is clearly observable from these examples that the process of socio-technical design, in a pure sense, has a long way to go before its adoption and application in the work place becomes fully understood and accepted.

The Shell pieces represent two different projects that took place in the head office, one, the change from a traditional typing pool to a fully fledged word processing unit, servicing several departments, and the other representing a single depart-

ment, the Employee Relations, early strivings to implement an office automation project and in the process grappling with the growing awareness that the initial design that separated the social and technical considerations was not going to succeed without major shifts in orientation. Other practical constraints that face any organization dealing with changes such as this are identified in both articles.

Morley Greenberg's article on applying integrated office systems is based on Bell Northern Research's own experience in the field, especially interesting as it represents a pilot system developed and applied by an organization that is intimately involved with the development of micro technology hardware.

The word processor is replacing traditional typewriters within office systems at an ever increasing rate. The manner of implementation in the early days appears to have lacked any real considerations of the impact that the technology was going to have on either the people involved or the office system itself. The Women's Crown Employees' piece outlines the growing awareness of the people and organizational issues that the various ministries are now responding to.

The overall views and approaches discussed in these articles do not represent any specific preferred or recommended way of implementing micro-electronic technology or QWL for that matter. Rather these views represent what and how people are presently thinking and coping with this new and challenging situation that our society finds itself grappling with.

The Practical Application of Micro-technology in Office Settings

Overview of the Automation and Reorganization of the Word Processing Centre at Shell Canada Limited's Head Office

by Moira Mueller

Background

In 1977, the Word Processing Centre serving Shell Canada Limited's corporate headquarters operated with a mandate to provide the best and most cost-efficient service possible to a diverse group of departments and an unlimited number of users. The Centre provided a centralized typing service to all departments except Legal in the headquarter's complex.

The workmix was diverse and complex encompassing all categories of business documents and with input terminology ranging from financial through to engineering. Similarly, the workload fluctuated greatly according to the differing peak periods and priorities of the various functions served, although it was always heavy. The bulk of the workload was new input, followed by revision work, with only a maximum of 10% of repetitive work being processed. The word processing and machine dictation equipment in place reflected the first level of automation.

The Centre was administered by a Supervisor and staffed by one Head, one Scheduler, six word processing operators, and four typists. The mode of operation was that of a structured and controlled organization. Incoming work was received in a central area and distributed to staff by the Scheduler. The proofreading

responsibility was not completely individualized in that the Head proofread finished work until the typist acquired sufficient experience with the diverse terminology to assume responsibility (usually within six months after hiring).

Similarly, staff questions on work were routed through the Head/Scheduler until operator proficiency was reached. Author work instructions were, for the most part, transmitted through the Head/Scheduler as it would not always be known which typist would be assigned to a job when it was initially received. All work was logged in by the Scheduler and logged out by typists, Head or Scheduler. Production statistics were maintained manually by typists and compiled monthly and quarterly by the Scheduler for management reports.

Absenteeism was not excessive. Staff turnover was not excessive. Nevertheless, a high degree of job satisfac-

tion was not evident and was reflected in occasional conflict situations which had to be resolved by the supervisor. By year-end 1977, the Centre was producing a commendable volume of high quality work, but the workload was increasing, resulting in an increase in overtime work and concern with maintaining existing service levels.

Plans were in progress to upgrade and increase the automated WP equipment in the Centre when the Office Automation Task Force was established.

In late 1977, the Office Automation Task Force decided to institute two Office Automation Pilot Projects, one of which would involve the Word Processing Centre. The purpose of the Office Automation Project in the Centre was to create a more effective department which, with the assistance of improved technology, would adapt readily to changing user needs and allow employees to meet their needs, interests and aspirations on the job.

Process of Development

The WPC supervisor was assigned to a project team which inclined an OATF Analyst, an Employee Relations Representative, and an outside consultant. The technological aspect (equipment) was the responsibility of a technical group of the OATF although the WPC Supervisor had some input. The WPC Project Team developed a study methodology which was approved by both the OATF and the Centre's management – the General Services Department.

The process of development was continuous through 1978 and encompassed many meetings attended by all WPC staff. The initial two meetings were general awareness meetings, conducted by the OATF and the WPC Project Team to outline the scope and purpose of the Office Automation Projects and to seek the full participation of all staff in the projects. From then on the meetings were workshop and feedback sessions, involving all WPC staff. For example, one workshop on work measurement revealed that, although the production statistics had been maintained by the Centre for many years, the staff were not convinced that management really understood or appreciated how much

work they produced and how difficult it was. Accordingly, a new method of work measurement, using weighted measurement techniques which recognized and equated the quality and complexity of input, was implemented for a one-month period. While the staff thought the data collection worthwhile, they were, nevertheless, unhappy and complained throughout the month about the amount and detail and time required to record same. One-on-one confidential interviews between the consultant and WPC staff were then conducted to obtain the staff's uninhibited input. The interviews were conducted in an informal conversational manner with a base of 17 questions which related to tasks, technical aspects, personal goals, etc. The summarized results of these interviews revealed the staff's basic areas of discontent, some of which were: –

Physical layout

–row of desks/ no privacy/ like school

Organization

–too structured/little independence

Procedures

–too much control/ little responsibility/ not enough contact with authors/ little involvement or recognition

Now that the staff's needs for greater independence, responsibility, recognition, involvement and privacy were identified, the task of translating these needs into workable operating procedures began. This was the most difficult, challenging and time-consuming part of the entire project as the Project Team did not wish to lead the staff to conclusions, but rather encourage them to develop their own procedures. Many workshop sessions were required in this process, including an all-day, off-site session, wherein the E.R. Representative conducted a workshop dealing with communications, analysis, decision-making, how to arrive at consensus, etc., etc.

By the end of 1978, the Project Team presented management with the results of the study and with a recommendation to reorganize the Centre into three, self-regulating work groups, each dedicated to serving a specific number of departments/authors. Obtaining management approval to proceed was, perhaps, the second most difficult aspect of

the Project. Management was naturally concerned about the degree of delegation recommended for staff who were untrained in areas such as planning, organizing, scheduling, coordination, etc. Additionally, management was asked to agree to a 'hands off' approach as the Project Team regarded it as mandatory to the success of the project that the WPC staff be allowed to solve their own problems, even if this meant a decline (hopefully temporary) in service levels. The staff had to be allowed to succeed or fail without interference when management approval to proceed was obtained.

The next steps were:

1. Formally document the new organization. This was done by the Supervisor with staff involvement. A Procedures Manual was produced which outlined the group and operator responsibilities agreed upon, and also included work measurement forms and all relevant data concerning the new organization.
2. A prototype of an operator work station (furniture, screens, typing aids) was built in the Centre and staff comments sought. Recommendations received were subsequently built into the final design. Staff input to floor plans for the entire Centre was also obtained.

In January 1979, the staff in the Headquarters complex were advised of the new organization and operation of the Centre and how the changes would affect them. Dictation training sessions were offered involving a review of the Centre's new organization, equipment and procedures, and how the Centre hoped to provide a more efficient and responsive service to its users.

In February 1979, all work stations were built and the Centre officially reorganized into self-regulating work groups.

Post Implementation

During the first six months of operation, frequent workshops were required to streamline operations, solve problems, build operator confidence and, generally, reinforce the new organization. Perhaps the greatest difficulty during this time was in developing the staff's comprehension

and acceptance of the accountability aspect of their new role. For example, many operators were happy to accept author compliments, but still wished to hand over problems with work and/or authors to the Centre's assistants (former Head and Scheduler) for resolution. Meetings with authors were also required to clarify misunderstandings re equipment capability or operator roles and to encourage authors to discuss problems with operators and not with assistants or supervisor.

After the first year of operation, the project demonstrated a few accomplishments worthy of mention:

1. The successful reorganisation of a busy production department from a structured and controlled operation to a self-regulating decentralized operation.
2. Equipment upgrading and retraining of existing staff to meet new objectives.
3. Involvement of all levels of staff in the planning and implementation processes has resulted in a much higher level of employee job satisfaction.
4. The results of equipment upgrading PLUS reorganization are:
 - workload increases (up 20 percent in first year)
 - work mix changes (revisions now 48 percent of production)
 - productivity increases (up 15 percent in first year)

- Turnabout/throughput improvements (75 percent of workload now processed in one day or less versus 55 percent prior to reorganization)
- new job descriptions/salary grades created (job enrichment/career development opportunities)
- absenteeism decrease
- decline in output quality (continuing emphasis required re operator proofreading responsibility)

After two years of operation, the organization is flexible enough to adapt to changing user needs. Occasional workshop sessions (with supervisor) conducted at staff request to change or reinforce operating procedures or to orient new employees.

About the Author

Moira Mueller joined Shell Canada Limited, Eastern Region office in 1958. During the eight years she spent in Montreal, she progressed from a junior typist to the position of Head of the Stenographic Department. She moved to the corporate head office in Toronto in 1966. In 1967, she transferred to the newly created Data Centre to develop and supervise a typing department of 54 employees.

In 1971, Moira became supervisor of the Records and Technical Library Department. She later assumed additional responsibility for the Stenographic and Reception Services Department.

Mrs. Mueller has been in her present position at Shell for six years.

Office Automation in the Employee Relations Department Shell Canada Limited

by Lynne M. Brophy

Office automation, from the time of early 'experimental' projects in Shell Canada, has been the responsibility of the Information and Computer Services Department (I&CS). A small group of individuals from this department was formed into a task force in February 1977 to investigate the opportunities presented by new office technology.

Shell Canada's interest in office automation stemmed in part from a desire to increase the effectiveness of office staff through the adoption of recently developed technologies and also from a continuing interest in examining possible areas for investment and diversification of Shell Canada's activities.

The I&CS Office Automation task force began their investigation by exploring available equipment on the market and searching for expertise in the field.

The task force members were computer systems professionals and not unnaturally their early considerations were primarily of a technical nature. Search led them to a consultant from the U.S. who had recently completed a significant office automation project for a major U.S. firm. The consultant had developed a study methodology which was designed to identify and demonstrate opportunities for significant hard and 'soft' dollar savings through use of office automation technology. His approach and experience were attractive to the office automation task force who retained the consultant and his associates to participate and advise in pilot projects.

One of the first projects initiated was in November 1977, in Employee Relations, a corporate department located in Head Office in Toronto. The project was considered in two phases. First, the study phase which received the primary focus and, secondly, implementation.



Moira Mueller
Shell Canada

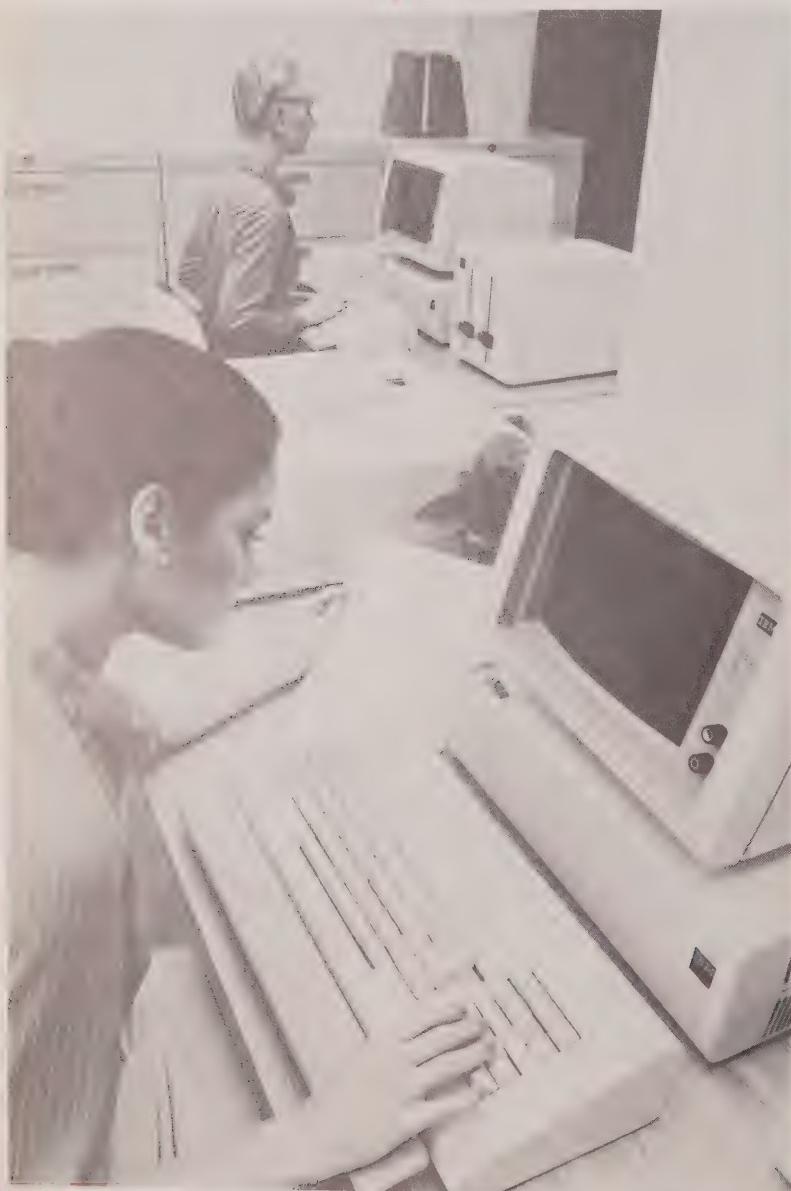
Responsibility for the study was clearly seen as belonging to the consultant and the office automation task force. Implementation, on the other hand, was seen as the responsibility of the client group. At this point, there was no consideration of the social system impacts of office automation. The notion of socio-technical systems was foreign and it was considered quite legitimate at the time to separate social and technical considerations, and equally legitimate to consider separately the study and implementation phases of the project.

The objectives of the pilot project are:

- 1) demonstrate the potential for professional and managerial time savings through machine dictation, word processing and the delegation of work as well as the potential for new technologies, such as electronic mail;
- 2) develop expertise in designing and implementing such systems.

The study plan included the following steps:

Initial briefing of all Employee Relations staff



IBM Display writer

Data collection

Data analysis

Preliminary design

Feedback sessions

Final design recommendations

Data collection took the form of questionnaires and interviews with Employee Relations managers and support staff as well as a paperflow study analyzing typing, longhand and copying output.

Questions to the management staff related to potential time savings as a result of being able to delegate work to support staff, willingness to use dictating equipment and amount of time spent photocopying. Support staff were asked about work volumes and allocation of time to their major responsibilities.

Analysis of the data, by computer, revealed considerable potential hard and soft savings, 'soft' savings being the freeing up of management time through delegation and dictation.

The technical design recommendations which resulted were as follows:

Four stand-alone word processing units

Twenty portable dictation units

One photocopier

An electronic mail system.

Strategic recommendations in terms of implementation related to the equipment size and capacity and the hiring and training of word processing operators.

These recommendations with a cost/benefit analysis were submitted to senior Employee Relations managers and approved by them.

One senior manager in Employee Relations with significant experience in organisation design and redesign had made several interventions during the course of the study to try to develop an understanding of the importance of a socio-technical systems framework. He had insisted that technical change could not be considered in isolation of critical systems implications. While his advice did not impact the study phase, an opportunity to influence the implementation was presented as the office automation task force withdrew from the study, leaving responsibility for implementation with Employee Relations staff.

Major constraints on implementation were the pre-determination of the technical design and manpower numbers. The support staff had been given a commitment that no one would be let go, although considerable change in job content could result and there was to be no increase in support staff, beyond a temporary commitment of one additional person. A further constraint was that implementation was to take place with minimum disruption of the work of the department.

An Employee Relations Implementation Committee was formed made up of managers whose role was to oversee the implementation and to plan and monitor the process through its various stages. Their role also included responsibility for feedback both to their own staffs at each key stage of the process and to the Implementation Committee regarding issues, ideas or concerns raised by their staffs at feedback sessions. Reporting to the Implementation Committee was an Implementation Co-ordinator, who was an internal organization development consultant from within the department. The implementation phase of the project spanned the first half of 1979.

Four committees of support staff were established whose role was to consider their typing workload in terms of transferring all typing to full-time word processing operators. It was intended that all typing, other than certain highly confidential documents, would be transferred. They were also to consider their own administrative workloads, to more efficiently allocate tasks amongst themselves and more evenly distribute the workload. Their mandate was to recommend changes in work distribution as well as any physical layout changes which might contribute to effectiveness.

Once the word processing equipment had been ordered and received, the units were set up in a central location and grouped together. It was felt that there would be more opportunity to handle peak periods and distribute work evenly through the establishment of a Word Processing Centre.

In considering the social system implications of this kind of technological change, decisions were made that no support staff would be forced to become word processing operators, and, if necessary, operators

would be hired from the marketplace who genuinely enjoyed this kind of work. The selection criteria for word processing operators, apart from typing speed and accuracy, included an ability to deal effectively with users, a willingness to operate as a team with fellow operators and the maturity to function as a member of a semi-autonomous work group.

The choice of a semi-autonomous work group rather than a traditional typing pool resulted from experience gained in a parallel study which had clearly demonstrated a variety of dissatisfactions experienced by staff working in this traditional type of organization. It was also felt that this organizational form would optimize quality of working life opportunities for the word processing operators in terms of control over their working environment, decision-making, and feedback.

Each word processing operator selected was allocated a group of clients, as far as possible in line with their interest in the work performed by the client group. The word processing operator was expected to function as a member of two teams, one within the Centre itself but also as a member of the client group's team, including the support staff attached to that team. The responsibilities of the latter changed to administrative only, a move which was considered enriching by the majority of support staff.

The word processing operators were given training in communication skills, problem solving, decision-making and conflict resolution as a way of helping them work semi-autonomously. They developed their own procedures, methods of work sharing and record keeping formats and took responsibility for their own vacation scheduling.

In developing their relationship with the client group, discussions were facilitated between managers, administrative support staff and word processing operators. These discussions included role negotiation and procedure development. Every effort was made to reinforce to managers that rather than losing a personal secretary, their 'right hand', they would be gaining increased administrative support on the one hand and fast, efficient typing support on the other. (Word processing

operators and administrative support staff are administered at the same salary grade.)

All clients using the Word Processing Centre were given dictation training and encouraged to use dictating equipment by the faster turnaround of dictated work by the operator. It has been estimated that dictation is four to six times faster than long-hand.

A major saving in management time was felt to be the opportunity for delegation to support staff. With typing responsibilities removed, support staff would now have additional time to assist their manager by assuming tasks he was previously handling himself, e.g. travel arrangements, even photocopying.

While some saving did indeed result from the delegation of clerical tasks to support staff, it was quickly realized that more significant savings could result if delegation were to begin at the top and cascade down level by level through the whole department. A senior manager, the most costly of staff, would potentially realize greater time savings through the delegation of major portions of his work to direct reports rather than the delegation of incidental tasks to support staff. While the study had indicated that one third of office automation savings would result from delegation, it became apparent that a far more significant opportunity lay in restructuring work from the most senior levels in the department down. The end of the delegation chain would be the administrative support staff, freed up by the transfer of typing to word processing.

By the time this opportunity was realized, Employee Relations management had generally discovered that what had originally started as an office automation project, had developed into a major organization change and redesign, affecting every level and position in the department.

Due to the complexity of the change, implementation took considerably longer than had been anticipated. There was some considerable resistance to the degree of change which seemed to be resulting. Expectations had not been set beyond certain technological changes while in the final analysis, the social system implications were considerably more com-

plex and far-reaching. Managers seemed to experience difficulty both in delegating tasks and in redefining their roles to make the most productive use of time freed up through delegation. The re-definition of roles were also found to be time-consuming and interfered with day-to-day business activities which had been stated as a constraint on implementation at the outset.

Project savings annualized based on the first six months of experience with word processing and dictation were approximately half those originally anticipated. There were no reliable statistics indicating savings from delegation, although most staff agreed that some delegation had indeed taken place.

As a result of experience gained in the Employee Relations department, the office automation task force has recognized the importance of social system considerations in introducing technological change and an internal organization development consultant has since been hired as a full-time member of the department. The Office Automation task force has developed an understanding of socio-technical systems theory and methodology and of the notion that study and implementation can never be considered in isolation of each other. While the office automation work in Shell continues to have a technological focus, there is now more sensitivity to social issues and the task force is in high demand by other potential client departments in Shell Canada.

In the Employee Relations department, a corporate reorganization led to the decentralization of much of the work performed by the corporate department. As a result of this decentralization, the Word Processing Centre was unfortunately disbanded and the operators reassigned. Word processing operators now work individually or in pairs in the re-organized department and the formal delegation process seems to have come to a halt. The maintenance of change continues to be one of the frustrations of the internal consulting role for which it would appear no panacea exists.



Lynne Brophy
Shell Canada

About the Author

Lynne Brophy joined Shell Canada in 1976 as a specialist in organization development and management training.

As an internal consultant, she participated in several leading edge projects in office automation and organization design and redesign, using a socio-technical systems approach.

Her present position is Manager of Administrative Services for Shell's Oakville Research Centre. Over the past year, in a line rather than consulting capacity, Lynne has contributed to a major organization redesign of the research facility.

Bell Northern Research applies Integrated Office Systems and the Quality of Working Life

by Morley Greenberg

There is growing evidence that integrated office systems can dramatically improve the effectiveness of office workers. The integration and application of computing, telecommunications, and information technologies to the office environment are already beginning to transform the ways in which people and organizations work. The greatest potential of these systems lies not in increased typing efficiency, but rather an increase in the abilities and effective-

ness of knowledge workers, those who work with their minds in processing, managing, retrieving, and communicating information.

QWL and Integrated Office Systems

Integrated office systems can affect QWL and in turn knowledge worker and organizational effectiveness in many ways. They can increase worker motivation by enriching the content of knowledge work.

Not only can office information communications systems affect worker motivation but they can also provide both a catalyst and a cause of changes in the working relationships between people and in the entire structure of organisations. Examples shown to date include: changing patterns to reduce isolation, organizational uncertainty, etc.; opening new career paths, especially for women; adding flexibility in work locations and work hours; changing the organizational span of control, to name just a few.

One of the strongest cases for a QWL approach to office system design and measurement is a negative one. That is, the implementation of an advanced office system involves a massive and far reaching intervention into the work system of an organization. Unless the designer and implementor are cognizant of the socio-technical nature of the system and the many 'organizational' and 'people' issues to be resolved, the system will likely fail.

Another case for the QWL approach derives from a macroeconomic or societal level. That is, the knowledge work sector of the economy is growing rapidly. There are many indications of increasing dissatisfaction among these workers, widespread alienation and social dislocation. But, above all, factors intrinsic to the jobs themselves have been undergoing change. In the interests of productivity and efficiency principles derived from 'scientific management,' work study, systems analysis, operations research, and other techniques have been allied to white collar jobs. More recently with the invasion of the computer, systems analysts have designed the jobs of the white-collar employees without their experienced counterparts in manufacturing, the industrial engi-

neers, but with similar outcomes. Many offices have undergone 'improvements' which have reproduced the atmosphere of the assembly line.

Impact of the System on QWL

It is only very recently that work has been done to measure the impact of integrated office systems on the effectiveness of work performed in offices. Without these measures it is difficult to assess specific user needs and to produce a customized system design which corresponds to those needs. Recognizing this need, Bell Canada began funding a project in 1979 at Bell Northern Research to grapple with this problem.

In a study which commenced in October 1979 a group of 19 knowledge workers were given electronic work stations to help them with various aspects of their jobs, including electronic mail, word processing, information retrieval, administrative support and data processing. This group consisted of seven managers, eight professionals and four administrative staff. The comparison group consisted of nine managers, 11 professionals and six administrative staff. The pilot group were selected primarily because of internal company needs. This is because, in order to be successful, a good research design and system must correspond to the genuine needs of the workers and organization involved. Pretest and posttest measures were taken for both this group and a comparison group. The latter group did not receive the integrated office system. As part of the BNR study it was hypothesized that there would be an improvement in the quality of working life, as measured by a job diagnostic survey. Specifically, management was looking for decreased staff turnover, decreased waiting time for staff for future assignments, increased staff motivation and morale, decreased work fluctuations, and better assignment of personnel to appropriate projects.

One measurement instrument, a survey questionnaire, contained a modified version of the Job Diagnostic Survey (JDS). The JDS is a tool designed by Hackman and Oldham to assess employees' current levels of motivation, satisfaction and work performance on the job. The scope of the instrument includes both satisfaction with the work itself as well as measures of how people feel about

various aspects of the work setting, including pay, supervision and peer relationships. Examples of items from the JDS include: 'How much variety is there in your job? That is to what extent does the job require you to do many different things at work, using a variety of skills and talents?' and 'To what extent do managers or co-workers let you know how well you are doing on the job?'

Results from QWL measures indicate that for several measures of quality of working life the pilot group had improved at the time of the posttest in a number of significant areas. These areas include greater job variety and more important, a greater sense of job accomplishment, stronger desire to be creative and imaginative on the job, and most important, that the communication system helps them with their job.

It also appears that the comparison group received less support from their managers, both in terms of fair treatment and in the opportunity to exercise independent thought and action. Furthermore, the job is causing this group more stress. At the same time there is a stronger desire for more opportunities for growth on the job.

From a variety of measures, it appears that job satisfaction and QWL increased for the pilot group. In addition, this group appears more aware of the potential of integrated office systems. In fact, this may account, in part, for their demanding more in terms of system requirements.

Additional analyses support the finding that the system had a positive impact on QWL, as measured by several variables, either in improving QWL or maintaining a certain level of QWL for which a deterioration in the comparison group was measured.

One of these areas was the feeling of worthwhile accomplishments from doing the job. Another was the opportunity to be creative and imaginative in one's work. These two areas are indicative of the positive impact that these new tools can have on office workers. There is increased freedom to complete and organize work due to reduction in the number of steps to complete a task and less time spent on clerical work which

can now be done by the system. At the same time, employees are better able to communicate and work with colleagues and are less hampered by differences in time and location.

Other improvements include greater variety in the manner in which specific tasks are completed, the opportunity to exercise greater control over the manner of completing tasks, as well as improved quality of supervision. Managers and their employees can communicate more frequently by the use of electronic mail, yet have fewer direct interruptions. Planning for meetings can also be completed prior to the actual meeting, so that the meeting time is maximized to discuss relevant issues rather than time wasted in planning agendas, etc.

In summary, it is evident that the BNR pilot system has had a positive impact on the quality of working life of the participants. These changes have, in turn, led to a greater sense of accomplishment on the job, that is, perceived job effectiveness. Further analysis of the user-system interaction will inevitably lead to more definitive conclusions about the relationship between improvements in quality of working life and increases in worker effectiveness.



Morley Greenberg
Bell Northern Research

About the Author

Morley Greenberg started his career in 1973 with the Ontario Ministry of Transportation and Communications' Human and Social Factors Research Section, Research and Development Division.

He worked as an independent industrial psychologist from 1974 to 1976, consulting primarily to Bell Canada. In 1976, Morley joined Bell as Supervisor of Research and Evaluation, conducting numerous studies in job satisfaction, employee motivation, and office planning.

He is now with Bell Northern Research, which he joined in 1980 as an assistant designer for the office communications systems project. Currently, he is project leader for BNR's Joint Productivity Research Program.

Word Processing: The Human Side

by Nan Thompson

Introduction

The interest in microtechnology as the breakthrough mechanism for increasing office/white-collar productivity has been growing in quantum leaps. Whether on a large scale basis, such as Office of the Future projects, or on a small scale one, such as conversion of typewriters to word processing equipment, managers are planning more and more to use the new microtechnology. Turning these plans into reality depends not so much on the acquisition of the equipment as on how the people who must be associated with it relate to the resulting changes in their work, work place and the organizational hierarchy. The realization of the potential of microtechnology is currently somewhat hampered by the lack of sufficient numbers of qualified people to operate the new equipment. It is even more important, then, for employers to attend to the human side of microtechnology.

The People Issues

The introduction of new technology to the workplace provides an opportunity to redesign the structure of work. Certainly the introduction of word processing equipment into the Ontario Public Service has raised a variety of issues relating to both the intrinsic characteristics such as variety and challenge, personal growth, autonomy, meaningfulness and recognition as well as the extrinsic characteristics of security, pay, safety and health.

As the extent of word processing equipment use grew, these issues were increasingly brought to the attention of the Women Crown Employees Office (W.C.E.O.) of the Ministry of Labour. The overriding issue was the quality of working life for the people directly involved with the word processing equipment. Was the introduction of new technology going to enhance or diminish the quality of work life of, in particular, the Operators? An Ad Hoc Committee, chaired by the W.C.E.O. and composed of technical staff (mainly supervisors of word processing units) and ministry Affirmative Action staff undertook to gather information to better define the 'people issues' and prepare recommendations for the smooth implementation of the new equipment.

Major concerns related to intrinsic qualities centred on participation in or consultation about the planning process, being given information and options, job redesign and the ramifications for training, reorganization of work structures and future career options. Other major concerns, extrinsic in nature, were compensation (including recognition of word processing equipment operation as a new and distinct function), potential health and safety hazards and work measurement. The Committee sought the opinion of word processing operators, word processing unit supervisors, and planners (of word processing equipment acquisitions) from ten ministries having a variety of word processing unit designs and equipment. In addition, two experts from the Occupational Health and Safety Division of the Ministry of Labour were consulted on the health and safety issues.

Some Findings

Nearly every Operator and Administrative Secretary identified information deemed necessary for potential staff to assess the desirability of the future work. The data they recommended be provided are: introduction to the type of equipment and its capabilities, job duties and workload expected in both the Operator and Administrative Secretary positions, training requirements and availability, classification/pay implications, potential health hazards, the working environment and promotional opportunities.

Consultation

Operators overwhelmingly indicated that they wanted to be consulted about the options for different jobs. Supervisors who had included their staff in the planning and/or implementation process believed this was an element in making their projects more successful.

Operators and Supervisors who were fully joining in the projects from their inception spoke far more positively about the changes and their work. These staff contributed significantly to the process and took pride in being part of the team and sharing in meeting the challenge of redesigning a better service.

Job Redesign and Training

While word processing equipment potentially allows for a total redesign of support services, there have been very few instances of this occurring. The ministries are increasingly adopting a more comprehensive approach and a few have Office of the Future projects on the drawing board. Most ministries have become aware of the problems of co-ordinating a variety of manufacturers' equipment, office space and job designs as plans for a higher degree of amalgamated support services progress.

Twice as many Operators who use the keyboard less than 70% (part-time) thought this arrangement was advantageous over full-time chiefly because of the greater variety and opportunity to get away from the keyboard. Four part-time Operators cited disruption of deadlines as a problem and four full-time operators pointed to boredom and lack of opportunity to demonstrate initiative.

Most commonly, the vendor's course and an operator's manual were the means of training new Operators. However, further formal instruction was required whenever new programs or addition to the equipment (e.g. math pack) occurred. Vendors do not usually address the socio-impact of their machines but both Operators and Supervisors find challenge in the equipment operation where it is possible to fully manipulate the machine commands. To do this, Operators need to develop an understanding of machine logic and

are then able to create on-the-job solutions or short cuts that do not appear in the manuals due to the newness of this field. One Operator's design of an input sequence has been adopted by the manufacturer for its training course.

Reorganization of Work Structures

This issue most clearly illustrates that people prefer different work environments in keeping with their work values. The change over to word processing equipment usually results in more centralization of support services and the establishment of word processing centres. If Operators are most interested in finding work environments allowing for initiative, personal responsibility for their work, and independence to set their own priorities, a stand-alone unit or small to medium centre was their choice. Other Operators, more interested in a feeling of greater efficiency, a more organized work flow and a 'team' environment, preferred medium to large centres.

Future Career Options

An initial career ramification of the conversion to word processing centres is an increased opportunity for support staff to progress into supervisory roles.

Having developed some understanding of machine logic as required by the operation of word processing equipment, Operators considered new options for future careers. These included the fields of records management, computer systems and accounting/finance in addition to general administration.

Work Measurement

The introduction of word processing equipment almost always results in a new job element: performance measurement, usually taken mechanically. The Ministry of Transportation and Communications which has identified the 'people' issue as a prime focus in its pilot project and included all staff since the planning process decided to use a measurement system that would not be tracked by the equipment. The measurement is taken for one week every five weeks. Operators now personally maintain their work measurement and Supervisors summarize it.

Suggestions for Word Processing Implementation

A number of suggestions have been distributed to senior management of all ministries outlining proposals for facilitating the implementation of word processing equipment. The suggestions are designed to address both the negative and positive potential directions that the introduction of microtechnology may produce. The relevant suggestions for quality of work life concerns are:

1. Wherever possible, involve the staff in as much of the redesign of the work process as possible. Consult with support staff concerning work flow problems and the adaptability of work to word processing.
2. Give support staff the opportunity to make an informed choice between regular support positions and word processing ones. (The information they require is listed in 'Some Findings' above.)
3. When designing the system, consider both the needs of the people in it and the technical needs of the system.
4. Design career paths so that they are as long and flexible as possible for word processing operators. This process is assisted by reviewing all positions in the support services field when getting word processing equipment because it very likely impacts on other jobs than those of the Operators.
5. Encourage and support word processing staff to get training and development in line with their future career plans, e.g. supervisory, record services, systems, future office technology, etc.

The Ministry of Transportation and Communications is a good example of an organization putting these kinds of suggestions into practice. They placed particularly high priority on the 'Personnel Issues' related to their pilot Office of the Future Project. The Ministry has developed a method to identify the 'people' factors to be addressed as the project progresses, including personnel issues raised by the staff: use of existing staff, establishment of a training program, incorporation of job enrichment concepts, variation in

work types, improvement of administration staff identity, continuation of the study of centralized concept and creation of an appropriate work environment. The project is too new for any final assessment but the ministry anticipates that two of the four components of any success will be ongoing staff involvement and the research and management of behavioural and personnel issues.

Introducing microtechnology in the form of word processing equipment to an office will produce considerable change. This is an opportunity to improve the quality of work life. In order to do this and to facilitate the implementation and acceptance of this equipment, the right choices need to be made to ensure that the development of jobs is firmly based on the needs of both the system and the people.



Nan Thompson
WCEO

About the Author

Nan Thompson is a Program Development Officer with the Women Crown Employees Office, Ministry of Labour. She is responsible for program development, monitoring and analysis, and technical advice.

Prior to joining the WCEO in 1978, she was a personnel officer with the Ministry of Health and the University of Toronto in the personnel functions of compensation, classification, and staffing.

Microelectronics and Communications Technology

by Anella Parker Martin

The conference on the impact of microelectronics and communications technology on the industrial workplace, held at the end of March in Ottawa, was concerned with the impact both in the workplace and on society as a whole, of the new techniques and capabilities of what has been called the Second Industrial Revolution. In this, the conference was less concerned with the new hardware of the systems than it was with their application.

The international perspective was set by the first session, and as the three days of presentations and discussion drew to a close, a framework within which to analyze the impacts and the areas of special concerns began to emerge. Consensus around these was neither sought, nor achieved, but the organizers, the Women's Bureau of Labour Canada, can be congratulated that the conference awoke Canadians both in the private sector, in unions, the press, and within government, to the urgent need for public education and debate on the issues of the microelectronic revolution and its impact on society – socially, politically, and economically. It was very clear that there was a need for government action at the political level to accommodate, encourage such new developments and mitigate against what could be disruptive consequences. If there was any consensus it seemed to be that technological advances in themselves were both inevitable and positive (or at least neutral), but . . . and here participants were divided as to the seriousness and the manageability of the 'but . . .'.

The issues relating to the introduction of microelectronics and its impacts fall into four categories:

Effect on the Labour Force

- deskilling jobs
- structural dislocations
- retraining and redeployment
- squeezing out of women
- dehumanizing of the workplace
- a return to piecework
- cottage industries

The Economy

- jobless growth
- income maintenance (social safety net)
- urban/rural and regional restructuring

Society

- education
- redefinition of work and productivity
- protection of privacy
- health concerns

Government

- more intervention
- rationalization of the relationship of private benefits and public costs
- national framework for accommodating change

The international perspective gave conference participants an opportunity to learn how other countries have gone about assessing, accommodating, and living with new technology.

Joy Selby-Smith from Australia, the country represented which has most in common with Canada, described the report of the Australian Government's Committee of Inquiry into Technological Change which was released in July of 1980. The committee's brief was:

'To examine, report and make recommendations on the process of technological change in Australian industry in order to maximise economic, social and other benefits and to minimise any possible adverse consequences . . .'

Although the report itself has not been well received by either the Government or the public, Selby-Smith's critique of it was a useful and comprehensive review of the issues at stake and suggested a framework within which to analyze the effect of technological change, given the need to draw together efficiency and resource allocation issues, health, social, legal and political considerations. Such analysis would permit examination of the full costs and benefits – non-pecuniary and pecuniary, social as well as private.

The issue of unemployment and 'jobless growth' was found to be more of a concern for new entrants to the labour force than for established workers, but this effect was difficult to distinguish from the impact of generally lower levels of economic activity – which are not particular to Australia. In contrast, Ulrika Tengelin from Sweden and Helge Skjeseth from Norway described the situation in their respective countries as one of advanced co-operation within a legislative framework designed to foster both change and growth and to regulate the process and impact of such change.

In Sweden and Norway, they reported, debate and action in this regard takes place within the context of a long established industrial democracy based on mutual respect and a history of co-determination between federations representing employers and union. Skjeseth commented on

Norway's 'Industrial Democracy' project which was initiated in the early 60's and has sponsored several research projects in the area of industrial relations. With the Norwegian Ministry of Labour they participated in formulating the Working Environment Act (1977), which provides the legal basis for what is known as the 'Data Agreement'. This agreement regulates the process of introduction of new technology into the workplace by providing for mandatory early information sharing and consultation between the employer and the union, participation by the union in decisions regarding the deployment of new technology in the workplace, and safeguards relating to health hazards, dehumanization and to fears regarding the confidentiality of employees' personal information. One important provision of the Act is that of 'demystifying' the technology - requiring that the information made available be in a form and a language easily understandable by non-experts. The Act also provides for the establishment of a 'data shop steward' to deal with issues and processes relating to the implementation and use of any new technology.

Ulrike Tengelin, from Sweden, described similar moves being made by the Swedish Government - such as the Data Policy Bill of 1979 regarding Administrative Data Pro-

cessing within the public sector, the establishment of two commissions to study the effects of computerization on the development of industry and commerce, and on employment and the work environment. A Data Policy Commission has been set up, and a bill is to be introduced in 1982 on principles and policies for the continuous computerization of society.

The speakers from both Norway and Sweden discussed the implication for women of new technology; this is a special area of concern for policy makers, as the jobs in which women tend to concentrate, such as data manipulation, are those most likely to suffer from job redundancies due to computerization. Concern was also expressed that as men were displaced by new technology they would increasingly encroach on traditional 'caring' jobs where women tend at present to predominate. In Norway, for example, male nurses and kindergarten 'uncles' are no longer the exception.

The speaker from Britain, Baroness Nancy Seear, also stressed the importance of training girls, while still at school, to compete for jobs based on technical and numeracy skills, instead of for jobs involving secretarial and clerical skills which are most vulnerable to erosion by new technology.

The British Government has, she stated, done relatively little to aid the introduction of microprocessors, despite the existing increase of unemployment (caused by other factors) and the serious recession. The possibility that current school leavers may never get a job in their adult life is very real.

Unions, she stated, are generally accepting of new technology, as they see it as a way of economic recovery, but they are also demanding safeguards. In contrast to these approaches, Sozaburo Okamatsu of Japan described the encouragement of the information processing industry (combining information processing and telecommunications) by the Government of Japan by way of a series of 'visions' designed to inform industry of the Government's desires and goals in this regard.

These visions are debated in the Industrial Structure Council, made up of representatives of academia, industrial and consumer circles. The Government also promotes technological development through the allocation of research and development subsidies to the appropriate industries. In cases where profits accrue to these firms as a result of the commercial application of such subsidized research, part or all of the subsidy is refunded to the Government.

Although it is acknowledged that problems of employment, the unlimited progress of information (which could create a controlled society) and other issues such as the violation of privacy, may result in some dislocation and conflict, businesses and government in Japan are responding positively to the development of new technologies. Craft unions are not organized in the sectors affected by this and workers themselves were reported as having a positive outlook on new technology.

Counter measures, Okamatsu reported, to any future employment problems were being taken. Such measures included provisions for re-education and retraining of workers, with special consideration for middle-aged and elderly workers, and the encouragement of women to become part of the new highly advanced, intellectual labour force.



William Hutchison of Telstar Holding Ltd. in his 'state of the art' presentation next day drew attention to the lack of government awareness and support in Canada for the computer and communication industry - 'the potential of the information age and its products is not yet understood by Federal politicians' he stated. France has earmarked \$25 billion for their informatics industry, compared to our \$28 million for Teledion, \$12 million for office automation and \$50 million for general support of microelectronics. This despite the fact that by the late 1980's, 65% of our labour force will depend in some measure on the use of information processing. 'We will be living in the Information Age, not the Energy Age'. He felt that there was a need for a Federal Ministry of Informatics to capitalize fully on the opportunities offered, to co-ordinate programs, and to address concerns regarding labour and industrial development.

A later speaker, Fred Pomeroy, from the Union of Communication Workers of Canada, called for government involvement to create a legislative framework in which to introduce technological change so that technology could be used to build a better world. The 'state of the art' he stated, was a 'state of chaos' in Canada - radically different from other countries which saw technology as a means towards social goals. 'Workers in Canada can certainly adjust and retrain, but at present they have no confidence in the current system to protect their interests'. He went on to say that while they can negotiate technological change, with no requirement for advance notification (as at present) they are left trying to deal with hypothetical issues.

Workers, Pomeroy suggested, are not involved in job redesign - word processor operators become robots, computers control the output of telephone operators and, whilst pushing affirmative action programs with one hand, the Federal Government with the other was developing technologies to downgrade women's jobs. He warned that the drive for efficiency was causing dissent and unhappiness which could sabotage this increase in efficiency.

Other speakers referred to the social, economic and political conse-

quences which might flow from an 'information economy'; in such an economy a more sophisticated measurement of output will be needed as information is less tangible: 'you can't drop it on your foot'. Other issues had to do with the dispersal (decentralization) of job centres; including the possibility of working at home (Toffler's electronic cottage industries); a bi-model distribution of the labour force (designers/decision-makers and unskilled workers) with less upward mobility; the overall need for less workers as automation replaces people, which, while leading to higher productivity, will decrease the market for products as consumer/worker purchasing power is eroded. New sources of purchasing power will be necessary, and with less jobs available, there will need to be a re-examination of work/jobs as a mechanism for distributing income.

Issues and examples raised from the floor by delegates continually returned to the themes of displacement and dehumanization caused by new technology in the workplace - of horror stories from actual case histories, the problem of retraining and shifting workers, especially those in the second half of their career and in particular women.

The health hazards posed by some of the new machines and the lack of adequate funding for research into such problems was referred to, as were issues around invasion of privacy, and the unpreparedness of the legal profession to deal with computer crime.

The conference ended on a note of optimism regarding what could be possible through new technology, tempered by an increased awareness of the potential problems (especially for women), and the urgent realization that Canada lagged seriously behind other nations in its policy and legislative preparedness for the coming 'revolution'. However, as one speaker (Jim McDaniel) said 'the conference is an idea in good currency' and it is to be hoped that governments and policy makers at all levels will move rapidly to set up mechanisms to more thoroughly research all aspects of the application of microelectronics, and to set up the necessary procedures to ensure that the benefits and costs are equitably distributed across society.

About the Author

Anella Parker Martin is a free-lance planning consultant. Previously she was with the Social Planning Council of Metro Toronto - with responsibilities in the areas of community development, social objectives and urban planning, race relations, and community services. She is presently consulting to Ontario Hydro in the area of irradiated fuel transportation and local community concerns.



Anella Parker Martin
Consultant

What's going on at the Ontario Quality of Working Life Centre



Tom Rankin speaking at the Centre's socio-tech course last March

Field Projects

The Centre is currently broadening its base of involvement in quality of working life projects in Ontario and is heavily committed to several other organizations and unions in assisting them in the exploratory stages.

In the area of new projects activity, of note is the emergence of a possible project site in the public sector. As well, explorations are taking place with the possibility of a community-wide QWL project.

In May the Centre assisted in a major event at one of its projects: A one-day QWL conference, on-site, which involved all the 160 salaried supervisors in the plant and 26 union representatives. Using 20 simultaneous workshops, the purpose was to involve and assist the wider system in

handling the transfer from the initiation stages of a QWL project to broadening the base and diffusing it across the plant. This event serves as the start-up condition for a wider approach in which ongoing planning, learning and change in work practice are integrated into our composite strategy.

Union Network

In the spring, the Centre hosted a meeting of trade unionists from field projects to explore the possibility of the development of a union QWL network. Response was very positive and the group plans to meet regu-

larly and distribute among themselves a report highlighting developments in their respective projects. It is an illustration of union learning in an inter-organizational setting.

The Centre is in the process of preparing a pamphlet titled 'Unions and QWL', based on a talk given by Stu Sullivan of the ECW together with references and comments on QWL by leading unionists. It should be available from the Centre Information Services this fall.

Education

The Centre has presented two major educational events so far this spring: a week long course in socio-technical concepts and techniques for participants in active QWL projects and a one-day seminar for the introduction of the quality of working life concepts.

The Ontario QWL Centre first workshop on socio-technical systems analysis and design ran from March 29 to April 3 and was held at the Canterbury Inn in Sarnia, Ontario. The workshop was resourced by Jacquie



Norm Halpern, an associate of the Centre working with a group at the Socio-tech Course in Sarnia

Mansell and Tom Rankin of the Centre, and two associates of the Centre, Norm Halpern, Shell Canada and Norm Paxton of the Canadian Paperworkers Union.

Of the 30 participants on the course, 26 were actively involved in joint union-management QWL projects associated with the Ontario QWL Centre. The participants came equally from union and management. In addition, there were four participants from two organizations in Sarnia which were used as practice sites for the workshop.

The focus of the course was on the 'how' of QWL - how can you design jobs and structure your organization to get the best fit between the needs of the business and the needs of the people? The course was designed to present the concept of socio-technical systems in straight-forward terms and then to give all participants an opportunity to practise the tools of analysis and redesign in an actual work setting. Three organizations in Sarnia - Fiberglas, Petrosar and Polysar - generously provided practice sites for the workshop..

The seminar ended with an examination of some of the more difficult practical issues involved in trying to make a QWL project work. A first-line co-ordinator and a middle manager from the Shell Canada Chemical plant in Sarnia met with the group to discuss the role of supervisors and middle managers in QWL. Two associates of the Centre also spoke on key issues in the implementation of QWL - Stu Sullivan, of the ECWU, spoke on the role of the Union in QWL and Bill Jeffery, a private consultant, spoke of the need to develop a variety of support systems both to develop a QWL project and to keep it alive.

QWL and Conestoga College

In association with the Productivity Institute of Conestoga College, the Centre carried out a one-day seminar on QWL for a large group of registrants from the Kitchener area. Over 80 people took part with representation from unions and businesses, public service and educators present for the day long seminar.

Jacquie Mansell gave an overview of the principles on which QWL is based.



Part of the small group session at the Centre's one-day seminar on QWL at Conestoga College

Following this session, the large group broke into smaller groups to identify and record their own key issues and concerns related to QWL. These identified concerns were reported back to the main group. After lunch, the registrants were able to select individual workshops that were resourced by Centre staff and associates, each workshop being focussed on particular key issues arising from the morning session. Workshops ranged over the following topics: QWL and union/management relations; resistance to change; QWL and the role of management; the dynamics of self-regulating work-groups and implementing QWL. The final session was taken up with a participatory panel discussion, with Stu Sullivan of ECW, Jacquie Mansell from the Centre staff, Hugh Auld, associate of the Centre, Jim Heard of the ITPF, Harold Giles of CGE and Ron Cooksley of Conestoga College as moderator.

Workshop in Socio-technical Analysis and Design

This fall the Centre is presenting a workshop on Socio-technical Analysis and Design to be held in Kitchener on October 25-30, 1981. The

workshop is designed for unions and management who are beyond initially exploring QWL and have decided to proceed with, or are in the midst of, a joint project. The workshop focuses on the process, methods, and tools of implementing and sustaining a QWL project. Participation is limited to 2 persons per organization, one from management, one from union (Ontario). For more information please contact Tom Rankin at the Centre.

Introductory Seminars

Also offered this fall will be two one-day seminars introducing QWL. The seminars will be of interest to the labour/management community and the public at large. The design of the day includes an opening presentation on 'The Why, What and How of QWL' followed by small groups discussing their reactions to the ideas presented by the talk and identifying those issues that participants wish to pursue. The afternoon session consists of a series of workshops on those issues identified during the morning session as of specific interest to the participants. The emphasis is on small group discussions resourced by Centre staff and associates who are able to offer specific practical experience in QWL. The session

finishes with a panel discussion. The first of the fall seminars will take place in Kingston in cooperation with Queen's University and St. Lawrence College. The location of the second seminar has yet to be finalized. Those people interested should contact Janine Kitchen at the Centre.

QWL and the 80's

The 1980's are exploding with issues of quality, productivity and the relationships of people to their work. New ways of organizing work are arising everywhere to address these issues. We are at the edge of a significant shift in traditional management practices and revolutionary innovation in organizational forms.

This conference taking place in Toronto, Canada, from August 30 - September 3 will be the first large-scale, open, QWL conference in the world. It is undoubtedly the beginning of a new era of dedication on a world-wide scale to improving the quality of life at work. Internationally recognized individuals from around the world will bring expertise and experience in the identified themes that make up the building blocks of the conference.

The program includes teams of managers, trade unionists, workers and specialists who have implemented many of the world's significant QWL projects. They will lead and participate in the sessions. With a climate of interaction and involvement as a goal of the conference, this will be a unique opportunity for some to gain first-hand knowledge of QWL methods, concepts, and experience. For others it will be an occasion to examine the state of the art, broaden existing perspectives of the field and explore emerging QWL trends.

The conference is already hallmark for both timeliness and significance of program. The outcome will undoubtedly mark a significant step forward in the quest for a better quality of working life within the international community.

The Premier of Ontario, the Honourable William G. Davis, will make the opening address to the Conference. The Provincial Minister of Labour, the Right Hon. Robert G. Elgie and the Federal Minister of Labour, the Hon. Gerald A. Regan

will both make speeches to the conference on Sunday evening, the 30th of August.

Publications

The Centre has a number of QWL publications that are available on request: the following titles are presently available and inquiries should be addressed to Janine Kitchen, QWL Publications, Ontario Quality of Working Life Centre, Ministry of Labour, 15th Floor, 400 University Avenue, Toronto, Ontario, M7A 1T7.

- *The Ontario Quality of Working Life Centre – Organization Policy and Program.*

- *Perspectives on the Quality of Working Life* – Proceedings of a conference hosted by the Ontario Quality of Working Life Advisory Committee in October 1980.

- *Issues in the Quality of Working Life*, a series of occasional papers:

No. 1, Dealing with some obstacles to innovation in the workplace by Jacquie Mansell. As the title sug-

gests, the paper aims to increase the understanding of the obstacles to change and to explore ways in which to overcome them. Obstacles identified are discussed in terms of three basic categories: need, motive, power and control.

No. 2, *The Evolution of Socio-technical systems*, a conceptual framework and an action research program by Eric Trist. This paper consists of the first ever overview of the evolution of socio-technical systems from their original formulation in the early Tavistock Mining studies until the present day. Socio-technical analysis is made at three levels – the primary work system; the whole organization; and the macrosocial phenomena. Trist examines the relations between these levels in the historical context which influences both the type and scope of the projects which were feasible. The paper concludes with some lessons from past experience and some directions for the future which may serve to stabilize and sustain QWL developments, and to aid in the process of diffusion.

QWL Focus – Newsjournal of the Centre, issues Nos. 1, 2 and 3.

CLEARINGHOUSE

Recent Developments

Canada

National Defence and QWL – National President Joe Powers of the Union of National Defence Employees is urging each of his union's locals to put QWL on the LMRC (Labour Management Relations Committee) agenda. While investigations proceed at the top in UNDE and the National Defence and filters down through commands to bases and from Union's Management Committee to its executive, it is at the local level that QWL will succeed or fail! Hence the suggestions to plug in at the local level. Powers and members of the QWL subcommittee of the National LMRC (Col. Murray Johnston, Lt. Col. Glenn Rampton and UNDE Research Director, Nelson Porter) are exploring the possibilities of establishing a QWL approach within the civilian side of the National Defence.

United States

Domestic Problems Program – The German Marshall Fund has announced its 'Domestic Problems Program' for the 1980s. This includes: employment and the nature of jobs; equal employment opportunities for women – there is a fund for providing equal opportunity internships for Europeans, a Swedish employment quota program, women's employment in the public sector, etc.; community services and human services; public participation in decision-making; and foreign workers and immigrant populations. There is also a European-American and International Issues Program which covers studies, conferences and seminars.

For further information write to the German Marshall Fund for its 'Current Activities' brochure, 11 Dupont Circle N.W., Washington, D.C. 20036, U.S.A.

Jobs in the 80's – The Public Agenda Foundation and the Aspen Institute for Humanistic Studies are conducting a joint project on 'Jobs in the 1980's' over the next four years. The project is international in scope, with parallel studies in the U.S., Japan, West Germany, Sweden, France and the U.K. The objective is to initiate the development of a new consensus on the organisation of jobs and work in the 80's. The five stages envisaged are: to define and appraise the mismatch between jobs and people; single out the most important social and political issues created by the mismatch and formulate alternative choices for coping with them; make explicit the consequences, costs, trade-offs, and hidden value premises of each choice; place the issue on the public agenda, using all communications media; and convey the findings through special conferences, presentations and publications for business, union officials, educators, etc. Further information can be obtained from the Project Director, 750 Third Avenue, New York, N.Y. 10017.

Ireland

Rolling Programme – The European Foundation for the Improvement of Living and Working Conditions, Loughlinstown House, Shankill, Co. Dublin, Ireland, has announced its 'Rolling Programme' for 1981-84. In principle, this will follow the pattern of the 1977-80 rolling programme, but the results of the last four years have shown that, with the developments which are likely to follow the introduction of new technologies, special attention should be given to technological development and greater importance attached to the improvement of living conditions and to the environment. A 'Draft Work Programme for 1981' is also available.

Denmark

A research project started in a new brewery (built by United Breweries) provides a unique opportunity to study socio-technical development processes on a green-field site. The new plant was carefully designed to meet both the requirement for production and quality of work life for the employees, and both management and brewery workers' union accepted the project, which was to be carried out during the first three

years of its existence. The aim of the project, undertaken by a research group from the Technological Institute in Copenhagen, is to see if general conclusions can be drawn from the experiences in the new plant. A report on the project is to be published in 1982. In the meantime, the group hope for opportunities for informal discussion with interested colleagues outside Denmark. For information contact: Gert Graversen, Department for Industrial Psychology, Technological Institute, Gregersensvej, 2630 Tastrup, Denmark.

Productivity – The Danish Productivity and Consultants' Committees have developed new guidelines for projects in addition to the dollar-for-dollar self-help rule; priority is being given to projects which contribute to improving the balance of payments and employment. The first national training programme for consultants attached to labour market bodies has been set up by the Committees. For further information contact: European Association of National Productivity Centres, 60 rue de la Concorde, Brussels 5, Belgium.

France

The French Ministry has recently produced a 'Directory of Training in Quality' through the Centre INFFO. The Ministry of Industry's Directorate for Quality and Industrial Safety is developing a 'national quality strategy'. Information from the Ministry at 99 rue de Grenelle, 75007 Paris.

Israel

The Ben-Gurion University of the Negev has set up a Center for Action Research and Training in Small Communities and Organisations. The Negev region includes various types of small communities: development towns (Moshavim) consisting of co-operative family-oriented agricultural communities, usually of new immigrants; and Kibbutzim, collective-oriented communities, which are scattered over a relatively wide area.

The Center has adopted the concept of Action-Research, in which social scientists and active and aware members of the community collaborate on projects that are aimed at systematic experimentation with new and varied alternative solutions to cur-

rent issues, which are decided upon by the communities themselves. The need for a collaborative coalition between people from the Moshavim and Kibbutzim and social scientists is highly valued by both parties and is built into the action-research philosophy and practice. The process focuses on democratisation of research – that is, community members themselves enter into a learning experience in which they learn how to collect the data they need, and analyse and plan it, based on the data itself and their own preferences, and take the necessary action. They learn by participation to evaluate the course of action they take and to use the feedback data for further planning and execution. Current issues being developed as action-research projects are: training and development of young leadership in small communities; active involvement and participation of the individual settler in his community; self-initiation and popular responsibility-taking in the new development towns (Moshavim); the process of diffusion of self-initiated experiments; work democratisation and improving the quality of working life in the factory, public service and public bureaucratic agencies; bridging generation gaps within the community; life and work cycle of the aging in the Kibbutzim; and collaborative efforts of different life style – development of collaborative projects (educational, economic and social) between the town and the kibbutz within a specified region. Further information on this can be obtained from: Moshe Shelhav (who set up the Center), Kibbutz Nahal 03, M.P. Hanegev, Israel.

The report of the Israel Committee on changing the length of the working day week has now been published. A summary is available from the European Association of National Productivity Centres, 60 rue de la Concorde, Brussels 5, Belgium.

India

New forms of work organisation field experiments, sponsored by ILO, Government of Norway (NORAD) and Work Research Institute, Oslo, have been set up with the National Productivity Council of New Delhi as the collaborating agency in India.

This project is testing new forms of work organisation, developed in Scandinavia and other industrialised

countries and applicable developing countries. Alternative forms of organisation have been developed in local settings for some six organisations, each being provided with a high level of consultancy service. Results have been assessed in terms of the extent of change introduced and its degree of institutionalization within these organisations.

Three of the six companies made considerable progress in applying the basic ideas and have introduced structural changes in the work organisations. Achieved by a high degree of management/worker participation, substantial improvements in productivity have been observed in these companies. The companies not able to achieve changes revealed a number of common characteristics, managers and professionals who are power and status oriented rather than task oriented are unable to support the kind of changes initiated in this project. Two main factors appeared to underline this syndrome, bureaucratic type of control basic to their management philosophy, and the other an over-specialisation and over-professionalisation of trade and higher education, causing people to be concerned with upward mobility rather than being interested in improvement of present work and professional position.

Other points of interest; active support of trade unions is a critical factor, especially in settings with wide divergence between preached ideology of participation and self-reliance and practice of rigid bureaucratic control; relatively low level of education is not, as expected by managers and union leaders, a basic problem for effective structural changes. However, learning *on the job* is a basic condition for such changes to occur. Monetary incentives are important for changing work organisation but managers and specialists tend to overlook other motivating factors like job content, job security, opportunities to learn, collaboration and mutual respect between fellow workers.

Finally, a major point was the need to ensure that particular solutions have to be developed at the local organisational level. Through this, workers' participation is strengthened and cultural adjustments can be made to fit local situations.

The project is still continuing in selected units. Requests have been received to begin similar work in other organisations. NPC is developing plans to extend these projects to other small scale industries and to offer services in this field to neighbouring countries. Based on these and other such projects the ILO has recently made a policy decision to increase its involvement in QWL issues. Notes available from National Productivity Council, Productivity House, Lodi Road, New Delhi - 110 003 India.

A report on the situation in India from Professor Nitish R. De, former director of the Public Enterprises Centre for Continuing Education, reads as follows: 'It seems that in India now two trends are emerging, arising out of the current economic crisis, with high rates of inflation and environmental turbulence. In the first place, interest in the future of the Third World, in particular India, is exercising the minds of action-oriented researchers. A new look at work organization is on the cards; involvement of grassroots in work planning, and a modicum of worker-control concept is gradually emerging. Management seems to have reached the limits of traditional instruments in motivating and inspiring the lower echelon of employees. There is a search for alternatives. Conservation of limited resources, particularly capital, has forced the management to resort to a more participatory style. There is concern about middle-management apathy. The large number of rural and urban unemployed is also a matter of concern for existing productive organizations. With a limited understanding of turbulent environments, different models of change - bureaucratic and less bureaucratic - are being attempted, and on the whole there is an appreciation that bureaucratic approaches are fast nearing their limits. Even in a sprawling government bureaucracy, the sense of complacency and assured authority is being shaken. How the weakened and divided network in India can consolidate and devote its attention and ingenuity to respond to these incipient forces remains a challenge for the coming five years.'

Recent Events

Canada

Designing more effective organisations: an introduction to socio-technical systems. Presented by J. Cotter and Associates, this course took place in Ottawa on June 25/26. Course participants examined in detail the relationships between motivation, work practices, organisational structure and technology. They were introduced to techniques for identifying key issues influencing productivity and human effectiveness. Options for improving those within a framework that seeks a better fit between the needs of employees and the work they do, were explored. For further information J.J. Cotter & Associates, 11165 Valley Spring Lane, North Hollywood, Calif. 91602.

Micro-electronics and the Worker. Peril or Progress - The Ontario Federation of Labour presented this conference last April to provide an opportunity for labour in Ontario to study and discuss the many ways that the micro-electronic revolution will affect Ontario trade unionists. The conference was opened by Cliff Pilkey, President of the OFL. Barry Sherman, director of research for the Association of Scientific, Technical, and Managerial Staffs in the United Kingdom was the keynote speaker. Some twenty five Workshops were offered over the three day conference designed to equip local union leaders with the basic information necessary to deal with the electronic revolution in their own work place.

IAPA Conference - The annual conference took place April 1981, QWL was featured as one of the sessions available to delegates. The QWL presentations took the format of a panel comprising of Hans van Beinum, Executive Director, Ontario Quality of Working Life Centre; Harold Giles, Manager, Employee Relations, Canadian General Electric; Norm Halpern, Consultant, Organizational effectiveness at Shell Canada; and Peter Warrian, Research Director of the United Steelworkers Union. The presentations introduced the concept and practice of QWL using Canadian experience to illustrate the growth of QWL.

United States

NTL Institute and OD Network – A conference on 'The Ecology of Work: Improving Productivity and the Quality of Work Life'; was held 8-10 April 1981, Hanalei Hotel, San Diego, California, U.S.A. The opening keynote address was given by Vice-President Robert Dickey of Synertek on 'Managing in the 80's and What We Must Do' and was followed by an afternoon keynote panel on 'A New Avenue of Co-operation in the Communications Industry', and a closing address on 'Labour/Management Co-operation: A Government Perspective' given by Louis J. Phillips, Assistant for Productivity, U.S. Department of Commerce. Information on this conference can be obtained from Lynn Wrigley, NTL Institute, P.O Box 9155, Rosslyn Station, Arlington, VA 22209, U.S.A.

Gestalt Institute of Cleveland – A conference on 'Complex Systems: the application of Gestalt Theory to Working in Organisations' was held 9-12 April 1981. The conference consisted of various workshops on such subjects as: 'Working with Resistance: the Gestalt Orientation'; 'Social Impacts of New Technology'; 'Exploring the Paradoxical Theory of Change'; etc. Further information from Gestalt Institute of Cleveland, 1588 Hazel Drive, Cleveland, Ohio, 44106

Issues for the Eighties Conference – Michigan Quality of Work Life Council presented this conference at Wayne State University, Detroit, Michigan. Prominent speakers were Basil Whiting, former Deputy Assistant Secretary for Occupational Safety and Health, U.S. Department of Labour, Barry Stein, President of Goodmeasure Inc., Yale University, Paul Goodman, Prof. Carnegie, Mellon University, Donald Ephlin, Vice President UAW, D.L. London, Director, Organisation, Research and Development, General Motors, Judith Gregory, Research Director, Working Women, Irving Blue Stone, Professor, Wayne State University. For proceedings contact: Basil Whiting, Ex. Director Michigan Quality of Work Life Council, 6560 Cass Avenue, Suite #315, Detroit, Michigan 48202.

Designing more effective organisations: – an introduction to socio-technical systems. J.J. Cotter and Associates, July 13-17, Chicago, Illinois. (See *Recent Events, Canada* for details.)

Eleventh Annual Information Exchange – the Organizational Development Institute's exchange took place on April 14-17 at Meadow Brook Hall Conference Centre, Oakland University, Rochester, Michigan.

Improving Productivity and the Quality of Working Life – sponsored by the Maryland Centre for Productivity and QWL, the conference took place on May 16 and, as a keynote address, had a senior White House staff member present the Reagan Administration view. The first day of the conference was devoted to gaining insight into the various viewpoints of government, labour and business and the second covered a series of six workshops that offered specific techniques for improving productivity and the quality of working life. Topics were Quality Circles; Productivity Gainsharing; Productivity Measurement in Service and Professional Areas; Computer Graphics; Aid to White Collar Productivity Improvement; Robotics and Advanced Concepts in Manufacturing Technology; Special Issues in Public Sector Productivity and Quality of Work Life Improvement. On May 7 following the conference, the National Network of Productivity and QWL Centres held sessions for centres only. Topic for the morning was the role of Productivity and QWL Centres in a national program effort to improve productivity and QWL; the Federal Executive Agency View and the 'Legislative View' were addressed. For proceedings contact: The Maryland Centre for Productivity and QWL College of Business and Management, University of Maryland, College Park, Maryland 20742.

Workplace Democracy, Quality of Working Life and the Kibbutz Experience. Presented by the Project for Kibbutz Studies, Centre for Jewish Studies and co-sponsored by the Harrmann Program on Technology, Public Policy and Human Development, this conference took place on June 10 and 11 at the John F. Kennedy School of Government, Harvard University. The format offered presentations of different approaches

and experience in participation, democracy and ownership in the workplace in different cultural contexts. For information contact Joseph Blase, Centre for Jewish Studies, 108 Vansberg Hall, 10 Divinity Avenue, Cambridge, MA 02138.

Jobs through Productivity, Re-industrialization and Quality of Work Life, A New Economic Future for America? Sponsored by the IRRA, this conference took place last April 8-10 in San Diego, California, and was designed to examine the role of collective bargaining as a viable tool in improving productivity, re-industrialization and the quality of working life. A definition of the conference theme was provided by Lou Davis, Director of the Centre for QWL, Institute of Industrial Relations, UCLA. Berth Jönsson, Corporate Planning Executive at Volvo presented QWL and Productivity, The Volvo Experience as one of the several keynote speeches. The program featured industry conferences as a major component for the participants, allowing the opportunity for movement from the principal (theme) speakers to a more specific discussion of what is currently happening within the collective bargaining process in a wide range of industries e.g., Aerospace/Electronic, Clerical, Construction, Federal, Health Care, Industrial and Retail and Warehousing Distribution. For conference proceedings details contact: Samuel H. Sackman, Assistant Regional Director, Federal Mediation and Conciliation Service, 3660 Wilshire Boulevard, Suite 700, Los Angeles, California 90010

Recent Developments

United States

Bell System and CWA – American Telephone and Telegraph Company and the Communications Workers of America adopted a statement of principles concerning joint efforts to improve the quality of worklife in the Bell system. The two-page statement was approved by the parties' National Committee on Joint Working Conditions and Service Quality Improvement, which was established in national negotiations last year.

Quality of worklife efforts, the statement says, are intended to increase 'employee participation in the deci-

sions which affect the quality of their work life: through local problem-solving. Goals of the programs are 'to employ people in a profitable and efficient enterprise' and 'to create working conditions which are fulfilling by providing opportunities for employees and groups at levels to influence their working environment.' CWA President Glenn E. Watts termed the statement 'an historic agreement that can have a significant impact far beyond this one industry.'

Representing CWA on the national joint committee are Executive Vice President John C. Carroll, Vice President W.C. Button, and executive assistant to the president Dina G. Beaumont. Management participants are AT&T Labour Relations Director O.L. Taylor, Vice President Fred Cook, and Assistant Vice President Robert D. Dalziel.

The statement emphasizes that QWL is a supplement to collective bargaining, that employee participation is voluntary, and that the programs will not result in layoffs or negatively affect the pay or seniority status of any employee. Carroll told BNA that the parties are 'still in the process of doing the necessary groundwork' and that only a couple of projects have been established. Programs are in place in the traffic department at Illinois Bell and in the plant department at Michigan Bell in Detroit, he said. The major concern of these projects is 'how to make the workplace a better place to work,' according to Carroll, who predicted that programs would be established at every Bell System company by the end of the current contract.

The 1980 National Memorandum of Understanding between CWA and AT&T states - 'recognizing the desirability of mutual efforts to improve the work life of employees and enhance the effectiveness of the organization, the Company and the Union express their mutual belief that activities and experiments initiated and sponsored jointly by Management and the Union can prove beneficial to all employees and the Company, and that by encouraging greater employee participation, work can be made more satisfying and organizational performance and service quality can be improved.'

Labour-Management Participation Team - Work cultures which have

been described by one employee in the steel industry as 'like working for John Wayne in a bad mood', are beginning to change. That is the consensus emerging from the initial work of Labour-Management participation team sanctioned in the most recent contract between American basic steel companies and the United Steel Workers International.

'You can sense a new attitude about work, a new level of trust and a willingness to take appropriate risks among those involved', noted Mr. Larry Ward, Vice-President, Labour Management Project with the American Productivity Centre (APC), which is facilitating the pilots at the plants of three major steel companies. APC has been working with the labour and management of these firms for the past year.

Early successes are encouraging. The department management in one plant, for example, had dealt periodically with the problem of tool availability in the blast furnace work area for some 25 years. 'I've been in on three different attempts to solve that problem', recalled one foreman. As its part in the participation team pilot, a team of blast furnace hourly employees and lines supervisors tackled the problem in May - thinking of ways to make sure the right tools would be in the right place when needed and that properly maintained back-up tools would be available. By July, the team presented a solution to the Participation Committee composed of top management and union officials. With the committee's approval, the solution is now scheduled for implementation.

Key to such problem solving efforts is early involvement of both union and management in the planning stages, according to APC. Then site selection interviews must be conducted to determine the most promising locations for pilot efforts. It's essential that intensive orientation and training activities cascade down from the corporate and international levels through management and union leaders to foremen and committeemen. 'The people whose work will be most directly affected must develop their own goals', Ward advised.

To support these efforts APC has provided awareness and skill training

giving people the tools needed to relate to each other in new roles and to identify and solve their problems on the work floor. The pilots offer a formal structure within which labour and management can test and develop the parameters of the program. But both the companies and the International have been quick to realize that what's happening cannot continue in isolation. So within the pilot plants other work units are also moving towards new ways of relating to each other on an informal basis. Several plants are now putting all supervisors and, in some cases, union leaders through awareness and skill training - whether their work units are involved in the pilots or not.

'Admittedly, we've encountered the usual barriers', said Ward. 'But everyone thus far is dealing with it quite effectively. The real test of course will be diffusion when we find out if, in fact, union and management within an entire plant can work together in this way. But for now, we believe we are seeing the beginning of a basic change in the way steel companies and steel workers are relating to each other.' Further information from American Productivity Centre, Houston.

Europe and United Kingdom

European Association of National Productivity Centres - Meeting arranged by the Rationalisierungskuratorium der Deutschen Wirtschaft (R.K.W.) from May 11-13, 1981 on productivity and quality of working life in the Federal Republic of Germany. The meeting took place in Eschborn Frankfurt with representatives from many European countries and the O.E.C.D. For information contact Tony Hubert, E.A.N.P.C. Rue de la Concorde 60, 1050 Brussels, Belgium.

Journal of Management Studies Conference - the group sponsored a conference on QWL, held June 24-26 at the Manchester Business School. The conference chairman was Prof. Tom Lupton, Director of MBS. Papers were presented to the conference from a wide range of European settings including Sweden, Holland, Germany, France, Italy and the U.K. It is intended to publish the proceedings of the conference in the *Journal of Management Studies*. Contact Prof. T. Lupton, Manches-

ter Business School, Booth Street
West, Manchester, England.

Germany

NATO Symposium: – Work, Organisations and Technological Change symposium took place at Garmisch, Partenkirchen, Germany, from the 14-18 June, 1981 as part of the NATO Special Program Panel on Systems Sciences. Co-Directors were Professor G. Mansch, International Institute of Management, Berlin, Germany, and Dr. Richard J. Niehaus, Office of the Assistant Secretary of the Navy, Washington, D.C., U.S.A. For further information and copies of the proceedings contact: Dr. Richard J. Niehaus, Navy Department, Room SD824, Pentagon, Washington, D.C. 20350

Australia

National Employee Participation Steering Committee (NEPSC) – This committee was set up in June 1978 following the adoption by the Commonwealth Government of a policy on employee participation. The committee comprises of senior representatives of trade union organisations, peak employer and some Commonwealth government departments. The work of the committee is directed towards developing a greater understanding, and encouraging the implementation of employee participation in Australia. The NEPSC is serviced by the Human Relations Branch of the Department of Science and Technology, Commonwealth Government.

The following booklets are available from the Human Relations Branch:

Shift Work in Australia, A Study of its Effects;
Employee Financial Participation; Job Design; Employee Participation in Australia – Progress Report; Employee Participation – A Broad View;
Employee Participation – Ways and Means;
The Journal 'Work and People'.

Please address enquiries regarding these publications directly to: Allan Wood, Information Officer, Human Relations Branch, Department of Science and Technology, P.O. Box 65, Belconnen, ACT 2616, Australia

Forthcoming Events

Canada

QWL and the 80's/La QVT et les Années 80 – an international conference on the quality of work life, August 30 to September 3, 1981, Toronto. The conference is a shared undertaking of the Canadian Council on Working Life and the International Council for the Quality of Working Life. For managers, workers, trade unionists, professionals and other persons involved in and committed to improving the quality of working life, and for others new to the quality of working life field and interested in sharing existing knowledge in the subject. Harvey Kolodny, University of Toronto and Hans van Beinum, Ontario Quality of Working Life Centre are the joint conference coordinators. (See *QWL Centre* for more information.)

Union and Management designing jobs for the changing workplace – a practical course in making work more meaningful and organizations more effective, conducted by B.C. Research in co-operation with Furst Consulting Ltd. September 20-25, 1981, Island Mall Motel, Parksville, B.C. This intensive 5-day course addresses both the organization's need for performance and the employee's need for a meaningful worklife. Current theories of job design are combined with on-site application.

Participants deal with such organizational issues as: how to initiate a design/redesign program; the roles of union and management; the changing role of supervision; the potential costs and benefits of jobs and organizational change. Contact Sue Burton, B.C. Research, 3650 Westbrook Mall, Vancouver, V6S 2L2, telex: 04-507748; tel. 604-224-4331.

The Micro-electronics Task Force – established in the 1980 throne speech. The chairman of the task force is Dr. Donald Chisholm, Senior Vice-President of Northern Telecom and Chairman of the Board of Bell Northern Research. The task force has been provided with staff input from a number of ministries within the government. The secretariat for the task force is provided by the Ministry of Industry and Tour-

ism. The task force has commissioned a number of internal studies which look at the industrial opportunities in the micro-electronics industry, the societal impacts as a result of micro-electronic developments, the impact on educational institutions, and the potential growth in job opportunities resulting from the introduction of this new technology. The task force is reviewing this internal research and expects to issue a report to the government in the fall of this year. For further information contact: David S. Burrows, Director, Industry Sector Policy Branch, Ministry of Industry & Tourism, Queen's Park, Toronto, Ontario, M7A 2E1

United States

Design/Redesign of organisations and jobs to improve their effectiveness and the quality of working life – 10th annual two-week residential course will be presented by the Centre for Quality of Working Life, Institute of Industrial Relations, UCLA, September 14-25, Laguna Beach, California. An intense integrated program of workshops, case analyses, site visits, discussions and lectures focussing on the use of socio-technical systems concepts to improve organizational performance and to provide a better quality of working life for employees. The course is intended for line managers, union officials and staff personnel from the public and private sectors who are concerned with job and organizational design or redesign, QWL and employee participation. For information: Centre for Quality of Working Life, Institute of Industrial Relations, 9240 Bunche Hall, University of California, Los Angeles, Calif. 90024

Conflict Resolution Technology, Second Organization Development World Congress – Special guest speakers will be Dr. Warren Bennis, University of Southern California Graduate School of Business Administration, and Dr. Eric Trist, International Consultant based at Swarthmore, Pennsylvania. Scheduled for October 13-16 1981, the Congress will seek alternatives to the escalation of violence as a means of dealing with conflict, crisis, contention and other forms of discord. Presenters will address topics related to 1) conflict management in business and industry; 2) conflict management in high technology industry;

3) conflict management in not-for-profit organisations and 4) intergovernmental strategies for conflict management. For registration information, Organisation Development Institute, 11234 Walnut Ridge Road, Chesterland, Ohio, 44026, (216)461-4333.

Round Table Forum – to be held by the Société Internationale pour le Développement des Organisations (SIDO) 9-11 September 1981, Washington. This Forum, which is also sponsored by the George Washington University, with the International Consultants Foundation and the OD Institute as supporting sponsors, is designed for men and women from business, trade unions, government and academia who are active in researching, developing, co-ordinating and implementing programmes and activities concerned with the quality of working life. The fee for this event is U.S. \$275, inclusive of papers, materials, and meals. Further information from: SIDO Roundtable Forum, Center for Research and Services, SEHD, George Washington University, 2201 G Street N.W., room 507, Washington D.C. 20052

Europe and the United Kingdom

Participation symposium – The Industrial Participation Association plans to hold an international symposium in Vienna, the theme of which will be 'Participation – A Joint Approach to Problems of Working Life in the 1980's'. Tentative dates are November 4-7, 1981. Sub-themes include: participation in strategic and management decisions, participation in decisions at the workplace, and participation in ownership and rewards. Further information may be obtained from: Patrick Dolan, International Symposium Organizer, Industrial Participation Association, 78 Buckingham Gate, London SW1E 6PQ, Tel: 01-022-0351.

Rethinking and planning for organisational effectiveness: an international workshop – October 12-17, 1981, Hotel Château Gütsch, Switzerland. This workshop will provide a special setting in which directors, chief executives and senior officers from different countries together with an international staff (Harold Bridger, Tavistock Institute of Human Relations; Leopold Vasina, International Institute for Organisational and

Social Development, and assistant staff) can explore and experience current managerial and organisational issues. The work will not be limited to conceptual understanding of the issues but include the operational implications for people in these key leadership roles and for their organisations. This workshop will be restricted to a maximum of sixteen participants. For registration and inquiries contact Dr. Leopold Vasina, IOD 55 Predikherenberg B-3200 Kessel-Lo Belgium, tel: 016/25 1671.

REFERENCE

The Ontario Quality of Working Life Centre operates an information service which includes the distribution of information kits, brochures and articles, etc., the performance of literature searches, and the publication of papers on QWL. For information contact: Janine Kitchen, Coordinator, Ontario Quality of Working Life Centre, tel: 416-965-5958.

Selected Readings

Micro-electronics and QWL

The following articles are a sample of some articles which deal with the theme of this issue: Micro-electronics and QWL. They are available free of charge from the information service.

Articles

Cherns, A. *Automation, How it may affect the Quality of Life*. In *New Scientist*, 78, 1106, June 8, 1978, pp. 653-655. This short paper examines the past, present and future uses of automation along with some of its effects. The paper includes three scenarios as illustrations. Cherns states that options should be kept open and that the environment should be continuously scanned to spot independent and isolated events plus developments which attain significance only when they unexpectedly become limited. Technological development offers opportunities for both enriching and improving the quality of life.

Cherns, A.B. *Speculations on the Social Effects of New Microelectronics Technology*. In *International Labour Review*, 119, Nov.-Dec. 1980. This begins with a discussion of

a shift of societal values toward economic, political and social issues. A recent poll of EEC countries indicates this trend by questioning what people value most in their jobs.

Microprocessors have a myriad of effects on society. New technology has the capacity for centralized or decentralized work organizations. QWL programs tend to move toward the decentralized type with some worker autonomy. Cherns discusses freedom of choice and the future of work and employment. In the future, productivity will increase with fewer man-hours needed. Industrialized countries look to 'growth' to maintain levels of employment. Future perspectives are given throughout the article.

Cooley, M. *Computerization – Taylor's Latest Disguise*. In *Economic and Industrial Democracy* 1, 4, November 1980, pp. 523-39. The computer is increasingly being used as a Trojan Horse for Taylorism. We are now beginning to repeat in the intellectual work environment many of the mistakes already made at such cost in the field of manual work. The division of labour is sweeping through the entire spectrum of white collar work from routine clerical tasks to some of the highest levels of creative activity such as design. Examples are provided of alternative systems which are human-centred and enhancing. Whether such systems are implemented is a question of profound ideological and political significance.

Coping with Technological Change: Carrington Viyella's Experience. In *Industrial Relations Review and Report*, #222, April 1980, pp. 2-5. Case Study. This paper examines the methods used by Viyella Yarns Ltd., a textile mill, to make a smooth conversion from a traditional production system to a highly automated plant with round-the-clock working and much reduced labour force. A policy of openness and consultation with unions and workers was basic to changeover.

Davis, L.E., Taylor, J.C. *Technology Effects on Job, Work, and Organizational Structure: A Contingency View*. In *The Quality of Working Life, Volume One, Problems, Prospects and the State of the Art*, edited with commentary by Louis E. Davis and Albert B. Cherns, published by The Free

Press, New York, N.Y. 1975, pp. 220-241. Technology design implicitly or explicitly includes certain psychological assumptions. Psychological assumptions are the most crucial elements in meaningful change in organization. Nearly all technology is designed by exercising certain assumptions about people and work. This review deals with job and skill studies of technological effects on requirements, worker autonomy and supervision, effects on group relations, and impact on organizational structure. Psychological concerns are highlighted throughout this paper.

Advanced technology presents us with a number of opportunities to develop new and more humane organizational forms and jobs leading to a high quality of working life. Firstly high technology possesses unrecognised flexibility in relation to social systems and secondly it both increases the dependence of the organization on individuals and groups and requires more individual commitment and autonomous responsibility in the workplace. Organizations have opportunity to redeem past, deep-seated errors in societal organizations and members' roles and to overcome alienation and provide humanly meaningful work.

The Due Project Group. *Project Due: Democracy, Development and EDP*. In Computers Dividing Man and Work, edited by Ake Sandberg. Published by the Swedish Center for Working Life, 1979, pp. 122-130. Project Due's primary objective is to contribute to trade unions' ability to carry out research and compile information on the effects of new technology on changing man-to-man communications to computer communications and also, on the solidarity of unionized workers. Unions in the past have found existing information to be biased toward employers who are usually responsible for the compilation of materials. The paper also discusses the six main impacts of EDP-based systems on workers.

Emery, Fred (1980): *Communication for a Sustainable Society*. In *Telecommunications Policy Journal*, IPC Science and Technology Press Ltd., P.O. Box 63, Westbury House, Bury Street, Guildford GU2 5BH, Surrey, England. In this article Dr. Emery asks: What would be a sustainable society in the year 2000? What communication facilities would it

require? Alternatively, what changes in communication would produce a sustainable society? 'It seems inevitable', he says, 'that the newly emergent problems of resource limitations, conservation and the recalcitrance of relatively affluent work-forces must lead to new forms of co-ordination and control, with the inevitable consequence that new thinking must be done about communications.'

In conclusion he says: 'The fundamental questions we must ask of any new communications technology are: does this just improve our means of commanding people at a distance or does it better enable people to mobilise the resources they need to make better decisions about their problems; does it encourage an ever-increasing specialisation and redundancy of the individual parts, or does it encourage a tendency towards the man-of-many-parts who is rarely at a loss to be useful?'

Jessup, G. *Behavioural Considerations of Production Technology: Technology, Employment and Job Satisfaction*. In WRU Occasional Paper No. 10, June 1978. This paper concentrates on the nature of work as it changes with new technology. Work is considered central to people's lives; thus, job design and form of new work organizations is very important. It examines advances in production technology that have resulted in dehumanization of jobs and unemployment. Strategies for introducing change are included.

Journal Extracts

Agence Nationale pour l'Amélioration des Conditions de Travail (ANACT): Lettre d'Information; 16-20 rue Barbes, 92120 Montrouge, France, No. 47, December 1980: this Newsletter gives the results of four regional studies carried out in France (the regions of Aquitaine, Auvergne, Ile-de-France and the Midi-Pyrénées), at the request of ANACT and the department of statistical studies of the Ministry of Labour, into a wide range of working conditions. This was carried out by a special commission created to look into questions touching on conditions of work in firms of more than 300 employees.

A supplement providing 'News of ANACT' announces that four of its Newsletters have been translated into English. They are: No. 16, Feb-

ruary 1978: 'Experiments performed by ANACT within Companies'; No. 25, December 1978: 'Training and Improvement in Working Conditions'; No. 33, September 1979: 'New Methods of Work Organisation - a Survey'; and No. 43-44, August 1980: 'The Management of Working Time'. The supplement also gives details of an 'hours of work' forum held in Paris last October, and of an international colloquium, held in Montpelier on 'Telecommunications and Work'.

No. 48, January 1981, is devoted to 'Working Conditions in the Industrial Strategy'. Further translations of ANACT Newsletters are: No. 41: 'An Experiment in Work Reorganization'; and No. 42: 'Administrative Work and its Prospects for Organisation'. No. 49, February 1981 is concerned with 'Industrial Automation and Its Consequences for the Work Force'.

'OECD Observer', Journal of the Organisation for Economic Co-operation and Development, Château de la Muette, 2 rue André Pascal, F75775 Paris, Cedex 16, France, No. 109, March 1981, of this bi-monthly journal has a large section on the OECD Report on 'North-South Technology Transfer: The Adjustments Ahead' - that is, the transfer of technology to developing countries. The authors of this report insist that the 'postwar experience of European countries and Japan shows conclusively that technology gaps can be narrowed and that technology transfer is an effective instrument for gradually bringing countries to similar levels of technical development'. There is also an article on 'The Role of Women in Development'. The journal is accompanied by an index of articles published in its pages between 1975 and January 1981.

'World of Work Report', Work in America Institute Inc., 700 White Plains Road, Scarsdale, New York 10583, U.S.A. Vol. 6, No. 2, February 1981 includes a report of a labour-management QWL programme at a Shell chemical plant in Sarnia, Canada, which was instigated in 1973. A 'two-man task force . . . concluded a study of quality-of-work-life innovations by recommending a new non-bureaucratic form of organisation for the proposed chemical facility'; and two years later a design team and steering committee of senior executives

and union representatives was set up, under the guidance of Professor Lou Davis of the Quality of Working Life Center at UCLA. The designers 'opted for organisational forms that would maximise learning and improve response time in dealing with disturbances as they arose', which included 'reducing the control of computers over production, increasing the amount of information available to blue-collar workers, and treating the plant as one rather than as a series of organisational units'.

Also in this issue is an article by Jerry Rosow, Director of Work in American Institute, on an experiment by the board of Chrysler to take a labour leader on their board.

New Publications

Bradbury, F. and Russell, J. (1980): *'Technology Change and Its Man-power Implications'*; J. Russell, CAP TTB, Staines House, 158-161 High Street, Staines, Middlesex, England. This research paper is the result of an international investigation into technological change in the chemical and allied products industries of Japan, the United States and the United Kingdom. The research, which involved a series of interviews with top management of companies in seven major sectors of the chemical industry, is divided into four parts. The first three are devoted to the kind of technological change that has taken place within the sectors concerned; the fourth part deals with the demands of technology and the expectations of people. The authors' research confirms that the crucial factor in improving productivity is to increase employee motivation and attitude to work, and argues strongly for a more integrated approach to people and technology. They urge that special attention be given to creating new working arrangements, managing organisational change, and developing both employment and training policies.

Cherns, A.B. (1980): *'Speculations on the Social Effects of New Microelectronics Technology'*; International Labour Review, Vol. 119, 9 Nov.-Dec. 1980. Professor Cherns' speculations in this article are on how the new technology will affect everyone. He discusses its 'values in society'; 'the potentialities of the microprocessor: centralisation or decentralisa-

tion?'; Decentralisation and the quality of working life; effects on white collar work; freedom of choice and determinism'; 'The future of work and employment'; 'The consequences for organisations'; 'The role of labour unions'; 'The changing role of industry'; and 'Consequences for developing countries'. He concluded by having grave doubts about the 'future that microelectronics makes possible' . . . the probability will depend on 'the choices that will be made in the near future'; and he fears that the 'choices will be made under the wrong pressures, national pressures to obtain competitive advantage, pressures to maintain employment and create more . . . by politicians, industrialists, technocrats for whom the quality of life is measured by GNP and the quality of working life is measured by the size of the pay packet'.

European Foundation for the Improvement of Living and Working Conditions (1981): *'Official Statistics on Working Time: Methodological Problems and Delimitations of Comparability'*; Loughlinstown House, Shankill, Co. Dublin, Ireland; tel: 851254. This research project was carried out methodologically with the aim of determining which factors hamper the comparison of data on the working time of employees, between different member states of the European Community, different branches and different groups of people within the country. The result of the research has 'clearly shown the difficulties of comparison of working times between different surveys and it is hoped that the problems . . . highlighted by this methodological study will clarify the position and help towards more comparable statistics to aid the search for solutions to working-time problems'.

Gustavsen, Bjorn and Hunnus, Gerry: *New Patterns of Work Reform: The Case of Norway*, Oslo University Press, 1981, 207 pp. North American distributor: Columbia University Press \$US11.00. Many of the most interesting and extensive developments in the fields of Industrial Democracy and Quality of Working Life have occurred in Norway. In recent years, the Norwegians have been working to link these earlier experiences with improving the workplace to major reforms in the area of occupational health and safety. After describing the first Norwegian Industrial Democracy program

in the early Sixties, followed by the election of employee representatives to company boards, the authors discuss in detail the most recent work environment changes incorporated in the Work Environment Act of 1977.

Perhaps of greatest relevance to North Americans are the chapters dealing with the merger between health and safety considerations and worker control over the actual work situation. Scandinavian studies have shown that the absence of freedom and competence in work is directly linked to poor mental and physical health. The most recent legislation in Norway attempts to correct this by giving increased legitimacy to rank and file activity in improving health and safety at work as well as increasing the power of employees in determining other aspects of the process of work, such as the introduction of new technologies.

Japanese Work Institute (1979): *'A Chronicle of Industrial Relations in Japan - Trade Unions and Relationships Between Trade Unions and Management'*; Chutaikin Bldg. 7-6, Shibakoen I-CHOME, Minato-Ku, Tokyo, 105 Japan. This document covers the evolution and structure of trade unions in Japan, legislation and relationships between trade unions and management. It was translated into French in 1980.

Jenkins, David (1980): *'Work Reform in France: A Ten Year Record of Progress'*; David Jenkins, 26 rue du Cotentin, 75015 Paris, France. Mr. Jenkins explains his reasons for writing on this subject as follows:

'Considerable attention has been given in recent years, among those interested in changing attitudes toward work, to work re-structuring innovations in such countries as Norway, Sweden, the Netherlands and Germany. There is no longer any doubt that these countries have been leaders in developing new forms of work, researching the psychological aspects of work organisations, and improving job satisfaction and productivity through job redesign and organisational change.'

Little, however, has been written in English about similar trends in France, and there is a general impression among many observers that France has lagged well behind other major countries in this area.

As we shall see, this is far from the truth, and the French experience can be of value to others – just as experience in other countries had aided the French to generate their own approaches.

There are several reasons for the misconceptions regarding French progress. The first is simply that, in fact, until a very few years ago, there were little or no work reorganisation activities in France. In 1970-71, this writer, striving to document French experience in this area, was surprised to find the general level of sophistication so low as to be almost negligible. Professor Jean-Daniel Reynaud, one of France's leading experts in industrial relations, remarked: 'There are practically no consultants in this area in France, and they are mostly concentrating on outmoded technical aspects of management.' This was at a time when advanced action research had been taking place in the UK, Norway, and some other countries for well over a decade.

A second reason is the secrecy that has surrounded much French work in this field. In great part, this is simply because of French business tradition. Many French companies, especially those with a history of tight family control, release little or no information regarding their activities or financial results. This question of secrecy is also related to a third reason – the character of trade unions in France. France has the lowest rate of unionisation of any major Western European country, generally estimated to be just over 20% (though no precise figures are available). By way of comparison, the rates in Germany and the UK are about twice this figure, those in Belgium, Ireland and Denmark about three times as high, and that in Sweden about four times.

Unions are, therefore, weak, poorly financed, and somewhat paranoid about anything new, especially anything that might threaten their already precarious position. Moreover, the two largest confederations – the Communist-dominated Confédération Générale du Travail (CGT) and the non-doctrinaire but generally socialist Confédération Française du Travail (CFDT) – have long held that the proper way to improve society is not to co-operate with capitalism but to replace it with an entirely different social order, through revolution if necessary. The

more they co-operate with capitalism, the more they feel they might strengthen it and the more they risk undermining their own carefully constructed ideological structures.

Indeed, France is the only country in Europe where the labour movement is dominated by unions seriously professing revolutionary orientations. To be sure, unions in some other countries indulge in a certain amount of extremist rhetoric and Marxist debate but only in France do they accompany this with action, e.g. a heavy emphasis on political rather than strictly trade union activity and frequent refusals to negotiate with companies or to discuss problems of national importance with the government.

Johnson, C.G. and Connolly, C. (1981); 'A Case Study of the First Two Years of Employee Shareholding in a Private Company'; Paper G17; Employee Participation Branch, Department of Industrial Affairs, GPO Box 465, Adelaide, South Australia 5001. This study was undertaken in a company of logging contractors, P.J. and P. Huckel, whose owner's reasons for reforming it were: belief that employee shareholding would increase the profitability of his company and allow for an equitable distribution of profits amongst the employees and owners alike; by suitably structuring his firm, provision would be made for an employee superannuation fund; and that eventually the company would operate as a co-operative which would benefit the community.

Jonsson, B. (1980): 'Production Technology and Quality of Working Life at Volvo'; Corporate Planning Department, Aktiebolaget Volvo, Gothenburg, Sweden. This is a working paper concerning Volvo's project, 'Jobs in the 80s'. It covers such subjects as: changing structure of work force; new laws and labour agreements; changing ethics in regard to work; formulating a new strategy and its realisation; craftsmanship in assembly operations; toward a strategy of job design and learning; what are the driving and restraining forces to successful implementation. The research part of the project will be finished before the end of 1982, but progress reports will be issued during the process.

Menzies, Heather, 'Women and the Chip'; Institute for Research on Pub-

lic Policy, P.O. Box 9300, Station A, Toronto, Ontario, M5W 3C7. ISBN O 920380 88 3. 130 pages, \$6.95. The rapid development of computer and telecommunications technology may soon cause a substantial dislocation in the workforce. This study looks at the effects the technology of 'informatics' will have on women employed in the service sector. Informatics involves the automation of all phases of information manipulation including gathering, integrating, storing and disseminating. The jobs that it will render obsolete are concentrated in the service-producing sector – jobs traditionally held by women. Not only will many secretarial, stenographic, and clerical jobs disappear from the labour market, but the jobs that are created in the 'information sector' will require specialized skills and training. Most of the employees who will be displaced do not have the skills required to adapt to changing circumstances.

If women are to continue to improve their status in the workplace, and if society is to gain the maximum economic benefit from the latest technological advances, steps must be taken to ensure a smooth transition to the Information Age. This report presents a careful analysis of potential dislocations in the workforce and the economy and makes concrete recommendations for government and business programs to guarantee a brighter future for working women.

Misrahi M. and Trépo G. (1981): 'A Factory Organised in Work Groups: An Evaluation by Different Parties'; Centre d'Enseignement Supérieur des Affaires, 1 rue de la Libération, 78350 Jouy-en-Josas, France. This 120-page report provides a full description of changes in work organisation in a nylon yarn factory. It begins by giving theoretical aspects of work organisation and goes on to describe the factory, the work methods and how the research was carried out. Evaluation of the changes in work organisation is provided from the perspectives of the workers themselves, the management, and the service functions concerned. A further chapter considers the implications for trade unions of the new work methods.

Nightingale, Donald V. *Workplace Democracy: an Inquiry into Employee Participation in Canadian Work Organizations*. Foreword by

Max Clarkson; University of Toronto Press, October, 1981. This book reports the results of a comparative analysis of participative and non-participative industrial organizations. This study is the first of its kind to report the social-psychological effects of significant employee participation in decision making. It is based on a sample of 1,000 managers, supervisors and workers in 20 Canadian companies.

Forthcoming Publications

The following publications are planned for the future: their availability will be announced in a future issue of QWL FOCUS

Microprocessor Technology and the Quality of Working Life, Dr. Calvin Pava. A future Occasional Paper in the series Issues in the Quality of Working Life from the Ontario QWL Centre. This paper, in place of either social or technical emphasis, will maintain a socio-technical perspective. Following the heritage of socio-technical systems design established by the Tavistock Institute, the report will highlight the intereffects of new technological capabilities permitted by microprocessors and the degree of choice for organization design.

Steps and Stages of QWL Redesign Project. A forthcoming pamphlet of the Ontario Quality of Working Life Centre will present a discussion of the common phases and issues that must be worked through in the development of a QWL redesign project. The paper is not meant to be a 'how to' manual on QWL; rather it examines the basic elements involved in most QWL projects in such a way that union and management people will have a better appreciation and understanding of what is involved in working together to redesign their organizations.

Organizational Development and Change, Claude Faucheu, Gilles Amado, André Laurent. Annual Review of Psychology, Vol. 33 (1982). The purpose of this paper is to review Organizational Development and Change. The scope and

coverage have been extended in two important directions over what has been done by the two previous review papers (*Friedlander & Brown*, 1974; *Alderfer*, 1977). Firstly, the coverage has been extended beyond North American publications. Indeed, it is no longer possible to ignore developments outside the US and Canada when they influence thinking and research in these two countries. For instance, developments in Northern Europe (Industrial Democracy) and Japan (Quality Circles) cannot be ignored. In addition, the special situation in Latin countries can provide significant insights about the field.

Secondly, the scope of this review – as reflected by its title – goes beyond OD to include Organizational Change. This is an indication of the fact that the OD label may no longer be adequate to describe the various developments that have taken place in the field during the past few years. The impact of the Quality of Working Life (QWL) movement has become critical. Some authors even wonder whether OD is not becoming an obsolete label (*Jones & Pfeiffer*, 1977) to be replaced by QWL (*Butke*, 1976).

Part I of this review will discuss and compare OD and QWL. The second part will extend this discussion to the cultural foundations of OD and QWL. The third part will look at a variety of developments specific to the Latin countries. Finally, there will be a concluding section attempting to broaden the perspective.

Abstract:

- Theory is not lagging behind practice and might even be actually ahead of practice in the field of planned social change.
- A theoretical basis for the integration of the various activities in the field of planned organizational change is more likely to be found with the socio-technical approach than within OD which is more than ever a label for an aggregate of techniques with, no doubt, a dignified ancestry but only loose theoretical foundations.
- Socio-technical theory has emerged

in a cultural setting very different from that where OD has developed.

- Socio-technical theory by stressing the necessity of dealing *jointly* with both technology and people has indeed rendered obsolete OD as an approach mainly centered on people and process, but has been able to merge with a development in the US parallel and complementary to its own in UK and Northern Europe to form a social movement known today by the name of 'Quality of Working Life'.
- Latin countries provide us with an example of cultures where the organization is not the prime focus of social change, where change is less 'planned', and where consequently approaches different from OD have emerged.
- Organizational development and change has to be assessed in the broader context of the world socio-economic development, if it is to take its full significance.

This paper is due for publication in the *Annual Review of Psychology* for 1982.

Call for Papers

Industrial Relations Behavioural Research – A conference on 'Behavioural Approaches to Research in Industrial Relations' will be held in February 1982 at Arden House, the Harriman Campus of Columbia University. Eight papers will be presented and then published. A cash prize of \$500 for each paper will be presented and the costs of lodging and use of facilities for each participant defrayed. Among the suggested topics are collective bargaining, productivity and economic dislocation; dispute resolution, including grievance procedures and the evaluation of strike experiences; and synthesizing behavioural research on industrial relations.

Papers reporting new empirical research are strongly encouraged. The deadline is September 15, 1981. For more information contact: Professor David Lewin, 708 Uris Hall, Graduate School of Business, Columbia University, New York, N.Y. 10027, tel: (212)280-4418.



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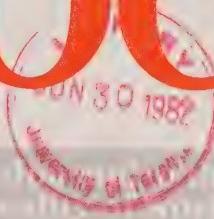
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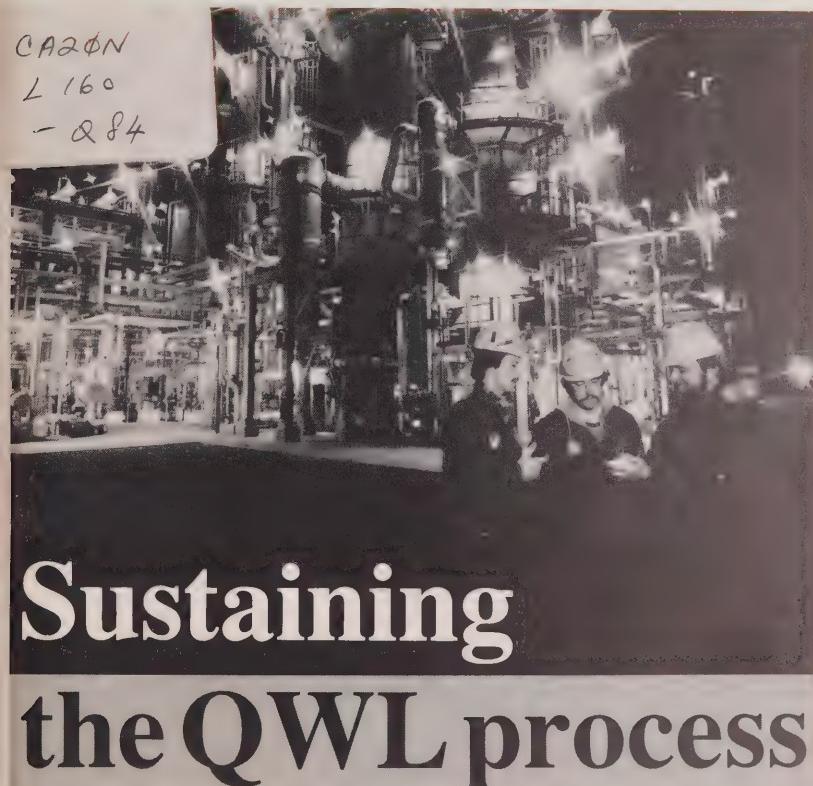
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Volume 2

Issue 1

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Sustaining the QWL process

by Jacquie Mansell and Tom Rankin

The challenge of keeping quality of working life alive and growing is quite different than that of starting it in the first place. Experience has shown that even projects that begin with great enthusiasm can, over a few years, fade slowly away. Most projects that die, do so not with a bang, but with a whimper. There are often no dramatic signals to warn of the seriousness of the situation.

In order to sustain a QWL project, therefore, conscious attention must be paid to the changing nature of the

process through all stages of its development. In particular, union and management leaders in the project need to be sensitive to the issues involved in sustaining quality of working life so that they will be able to appreciate how decisions made in earlier stages might ultimately affect the survival of the project. This is especially true in the kinds of situations where some trade-off must be made between short-term benefits and long-term survival.

Maintaining commitment

Commitment at all levels in the organization, within both union and man-

FOCUS

Last year in QWL FOCUS we discussed in some depth, the conditions and input necessary for starting a QWL project (see Vol. 1, Issue 2). In this issue we focus on what is involved in sustaining and diffusing a QWL project. To initiate an innovative work organization is one thing, to sustain it is quite another. There exist numerous examples of projects that began well but did not survive. All too often the missing component can be related to an absence of any recognizable steps taken to sustain the process beyond its initial birth.

Given careful nurturing, flexibility and awareness, it is quite feasible to design, promote and sustain significant changes in our ways of doing work. Almost at the moment of conception of organizational change, whether greenfield or redesign, should begin the process of sustainment. The aim needs to be the establishment of a climate of understanding and expectation at work that creates a sustaining atmosphere, within which the reasons why, when and how work is done are continually evaluated against the principles of QWL.

There are companies in Canada, Europe and the U.S.A. that have made this philosophical switch in their conceptual approach to business. Their continued growth and vitality augers well for the process. Editor.

The Shell Sarnia Chemical Plant at night. Photo by Grant Hill Photo Inc.

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FOCUS *continued from page 1*

agement, is essential in every stage of a QWL process. However, in order to sustain a project, it is not enough simply to maintain the commitment of earlier stages, the nature and meaning of commitment must grow as the QWL process itself grows.

What commitment means in real terms at the startup stage is primarily the ability and willingness to believe in a different set of values and to take the risk of trying to apply those values to one's own organization. During the redesign stage it is more a matter of:

1. Being able to live with the uncertainty of change, and
2. Being willing to make the investments in time, money, energy, etc. required by the change process itself.

Sustaining a QWL process, however, means being committed enough not only to deal with the difficulties of change, but more importantly to live with the imperfections, or costs, which are an inherent part of any system.

The visions that guide QWL projects during their early stages are, almost by necessity, idealistic. People would not be motivated to change if they did not have fairly high expectations for a better future. Yet in practice these ideals are never completely realized; expectations are never fully met. In addition, success in a quality of working life process is not a promise of organizational Nirvana. Non-bureaucratic structures and democratic processes have some real costs (such as the amount of time and degree of interpersonal skill required for participative decision-making), as well as substantial benefits. Real commitment means believing in the benefits enough to be willing to live with the costs.

One way to help maintain commitment is to have periodic sessions where union and management, both alone and together, 'take stock' of what they have done and of where they are now. Such stocktaking sessions should be designed to allow for open interaction among people from different levels and different areas in the organization. People need to be given the space to share and reflect on their varied experiences with

quality of working life and to work through a common understanding of future directions. If possible, it is better to hold such sessions off-site, away from the day-to-day demands of the workplace.

Stocktaking sessions can have the additional advantage that when key people voluntarily 'go public' inside their organization regarding their experiences, hopes and fears concerning QWL, it can help other people to understand better what they themselves have been through. It can help them to cope with their own hopes and fears and it can lessen the feelings of isolation and uncertainty which often accompany change.

The maintenance and growth of commitment can also be supported by having people share their experiences around QWL with other organizations. The process of 'telling one's story' enables people not only to clarify the meaning of the experience for themselves, but also to appreciate the significance of what they have achieved. When you have to deal continually with the day-to-day struggles and disappointments of a project, it is often difficult to see what actually is being accomplished.

Diffusing the process

It is much easier for change to survive if it becomes organization-wide. If one part of an organization begins to get a lot of attention and then to look and behave differently, this can often breed feelings of suspicion, jealousy, and hostility in the rest of the organization. If left to grow, these feelings may lead people who are not involved in the QWL project to reject, isolate or even attack the innovative area. Rumours begin to fly, people become uncooperative in their relations with the QWL area, and the QWL project starts to be blamed for all sorts of unrelated problems in the organization. Unfortunately, people within the QWL area can sometimes contribute to the problems by unconsciously beginning to see themselves as special – a kind of elite group.

One way to help alleviate at least some of the problems associated with diffusion is to begin the project in two or three sites at the same time. Some organizations have even attempted to change their whole operation at once. However, most

managements and unions do not have the necessary resources or feel comfortable enough to begin a QWL project on such a large scale. Trade-offs must usually be made between the problems of diffusion and the problems of spreading one's resources too thin.

Because of both the strength of the 'rejection reaction' and the fact that it usually develops fairly early in a project, diffusion should be one of the issues addressed early in the QWL process. Right from the start of redesign, careful attention must be paid to the relation between the QWL site and the rest of the organization. Diffusion should definitely not be delayed until the first site has unconditionally proven itself.

Another reason why diffusion should be considered early relates to the fact that QWL is not a recipe for achieving specific changes in structures or practices, such as workers doing their own scheduling or a different form of discipline procedure. QWL is an approach reflecting a set of values and principles. Diffusion, therefore, is not a matter of spreading specific changes, but of expanding a process wherein all areas are given the time and space to work through the meaning and implications of these values and principles for their own operation. If this diffusion process is not started early enough, developments (such as mentioned above) may occur within an organization, because of changes in one area, that could put considerable pressure on other areas to change before they are ready.

Establishing systems for on-going evaluation and redesign

QWL recognizes that design, action and evaluation are interrelated and, moreover, circular activities. Evaluation should indicate what is working and what is not and should lead to redesign and new action. The ability to monitor the program as it develops and make the necessary changes is critical to the survival of a project.

It is unrealistic to expect everything to work exactly as planned. It is not a sign of failure or of 'backing down' on QWL to change plans or strategies that just are not working. The important thing is that all changes

stay true to the basic values and principles of the quality of working life.

Since quality of working life is based on fundamentally different values, principles and processes than those of traditional job and organization design, it is not appropriate to apply traditional evaluation principles and methods to quality of working life projects.

Traditionally evaluation inside organizations has been based on the same principles as scientific management – everything is broken down into its simplest pieces and then given to a specialist to handle. Only quantifiable information is considered and emphasis is placed on obtaining hard measures of 'bottom line' concerns such as productivity, scrap rate, etc. Baselines are established, specific targets are set and measures are taken at predetermined, regular intervals.

The evaluators are usually either technical experts or senior managers. Supervisors and workers are sometimes treated almost like objects; their only involvement in the process is as the passive recipient of either the rewards or punishments that often follow on the results of the evaluation.

In contrast, within QWL, evaluation is based on the principles of learning, active participation and shared responsibility. The major purpose of evaluation within QWL is to deepen people's understanding of the change program in which they are involved. Not only is this understanding valuable in itself, but it is absolutely necessary if people are to make the adjustments needed to improve the program as it develops.

The participants in the project, the people who must live with the change and make it work, must take as much responsibility for evaluation as they do for planning and implementation. The idea of an outside 'objective' evaluation is not appropriate. Management, union and workers must decide what needs to be evaluated, how, when and by whom the evaluation will be done, and how the results of the evaluation will be used.

Since quality of working life deals with many things which are not quantifiable, it is important for QWL evaluations to collect information on subjective experiences and impressions. In some cases, it can also be useful to collect data on behaviours and feelings in specific incidents of critical importance (e.g. what happens in discipline or grievance cases, or in the introduction of a new piece of technology). Hard, quantitative data is also required, but care must be taken to measure only what is really needed. In all areas, instant improvements should not be expected.

Regardless of the type of information being gathered, the participants in the program should know *why* they are collecting the data and understand the tools they are using to do so. Only then will they be able to manipulate the data properly to meet the wide variety of evaluation needs that will arise – both from within the organization and from outside it.

Since the understanding gained through evaluation is needed to make adjustments and improvements, it is important to develop structures and procedures for monitoring the project as soon as possible. It is also essential that the monitoring become a part of everyday practice and, therefore, an ongoing, integral part of the QWL process itself.

Making adjustments can deepen people's appreciation of the nature of the change process and increase their confidence that things will not get out of control. It is important, however, not to react too quickly to negative feedback with respect to change. There is often a 'period of adjustment' following a change where both hard and soft measures may take a temporary dip before people learn to make the new system work. In addition, tension, confusion and dissatisfaction can be indicators that people are seriously (and effectively) working through an important, but difficult issue (e.g., the redistribution of decision-making power between a middle manager, supervisor and work group). Careful judgement is required when trying to decide whether a situation requires patient nurturing or more basic redesign.

Adapting support systems to QWL

Every organization has a range of systems (formal and informal) which support the basic values and goals of the organization by making sure that everything is working as it should. For example, there are systems for hiring employees, for providing orientation and training (social and technical), for ensuring that people behave in a manner consistent with the company's goals, for allocating resources (money, materials, manpower, etc.) within the organization, and for handling the relation between union and management. In order for a QWL process to survive it is absolutely essential that these support systems be adapted to fit the new values and goals reflected within quality of working life.

Training systems are key support systems within quality of working life. The content, design and methods of training programs must be consistent with QWL. Effective training depends on the development of a system which can identify needs on an ongoing basis and provide the appropriate training. The nature of the training will depend on the stage of the project and the stage of development of the individual or group. Some training will be undertaken jointly by union and management and some will be separate.

Managers at all levels, the union executive and stewards, internal QWL resource people, staff support people in critical functions (personnel, finance, industrial engineering, etc.) and the workers will all need to develop new knowledge and new skills in order to work effectively within a new system. It is unfair to expect people to develop new attitudes and behaviours, and sometimes even new roles, without support.

The training of new people as they join the organization is also important as one way of orienting them to the values and principles, goals, and structures and processes of the quality of working life.

Reward and control systems can also have a significant effect on the survival of QWL in an organization. Rewards can be both monetary and non-monetary. While non-monetary rewards such as opportunities to participate in decision-making and to develop new skills are certainly of

value in themselves, it is only fair, and may be the key to helping sustain the project, that the formal reward system respond to increases in people's skill level, responsibility, and performance.

The systems for controlling people's behaviour should also be adapted to the values and principles of QWL. Authoritarian discipline systems are not consistent with a process based on cooperation and on respect for individuals as mature adults.

One of the most important formal systems affecting whether a QWL project will survive and grow is the collective bargaining system. Since the collective agreement both contains the rules governing many of the support systems in an organization (e.g. scheduling, discipline, monetary rewards, etc.) and is itself a system for handling the relation between union and management, as changes occur in these support systems and in union-management relations, it may be necessary to make some changes in the collective agreement. However, because the collective agreement has a great deal of real and symbolic meaning within an existing organization, changes to it must be handled carefully.

Living with a new kind of organization

If a QWL project is sustained, then eventually there must come a time when quality of working life no longer represents a change, but a way of life. As the new values and principles spread to all areas of the organization and as more and more of the support systems and the policies and practices of both union and management become consistent with these values, the organization as a whole becomes a different place.

In the early stages of a QWL process, most change occurs in a conscious, conspicuous and sometimes painful manner. As the process is sustained, however, change begins to occur unconsciously, without notice. Seeking for new ways to do things better has become an ongoing way of life.

It is important to stress again that quality of working life should not be seen as a promise of paradise. We believe that the values and principles

underlying QWL will lead to fundamentally different organizations that will be both more humane and more effective. They will, however, not be problem-free. In the end, management, union and workers within each organization must decide for themselves whether they are willing to accept the new set of problems, as well as the new benefits and achievements that come with the new organization.

About the authors



Jacquie Mansell and Tom Rankin are Program Coordinators with the Ontario Quality of Working Life Centre and are consultants to a number of joint union-management QWL projects.



Sustaining change in the Shell Sarnia Chemical Plant

by Norm Halpern, Shell Canada

Introduction

In early 1979 Shell Canada brought on stream a \$200 million facility to manufacture polypropylene and isopropyl alcohol. This plant at Sarnia, which employs approximately 190 persons, including both operating personnel and staff, is part of a Shell petrochemical complex which has been in operation at that site since 1952. Employees are represented by the Energy and Chemical Workers Union (ECWU) – formerly the Oil, Chemical and Atomic Workers

Union. The manufacturing process is continuous – 24 hours a day, 7 days a week – requiring a high level of technical skill, with heavy emphasis on equipment maintenance, product quality control, and safety.

A socio-technical systems approach was followed in the design of this plant, incorporating quality of working life principles. Key features include:

- single operating department for the entire unit;
- multi-skilled shift teams, with individuals trained in process operations, equipment maintenance,

quality control testing, scheduling, etc., in addition to a team of journeyman craftsmen;

- work schedule which substantially reduces shift work;
- no job classifications;
- skill-based pay structure, increases awarded for acquisition of new knowledge, with all employees encouraged to reach top rate;
- emphasis on self-regulation;
- few artificial status differentials.

The process of designing and maintaining an organisation encompasses many stages. Kurt Lewin described it most succinctly as "un-



Doug Bisson in the control room at the Shell Chemical Plant in Sarnia. Photo by Grant Hill Photo Inc.

freezing, moving toward change, and refreezing". It is the last stage which is the focus of this article. We, within Shell, now believe that we can fairly competently manage the processes related to getting a project implemented; however, it is in the realm of long-term development and survival that we still have much to learn. The Sarnia project continues to be successful because of some actions that were consciously taken – and in spite of some that were not. The following discussion describes Shell's experiences with sustaining this undertaking, and highlights key learning.

Developing commitment

A key question which must be considered is – commitment to what? There is a tendency to refer to the QWL project as a discrete, well-defined entity. In fact, however, it is a complex undertaking composed of many components, which are generally perceived differently by various persons and groups. In an effort to attain a consistent view and understanding of what the ultimate goals of the QWL design were, Shell developed a Philosophy Statement. This document outlines background, objectives, and rationale for the program. Today, almost seven years after it was written, this Statement remains alive. It continues to be the reference for debate as to whether goals are being achieved, and serves as the guide for ongoing organization design.

Change projects, particularly in the early stages, face a very rocky road. Unanticipated outcomes occur, expectations are unfulfilled, productivity may initially suffer, and the skeptics are quick to criticize and 'tell you so'. Often the sole driving force for continuation is a belief by those in influential positions that this was a 'right' decision. This strong commitment motivates them to carry on in the face of uncertainty and risk. Those faced with the dilemma of 'should we continue?' include management, union, and employees. Strategies for developing and maintaining commitment are needed to address the interests of each of these groups.

The initial step taken at Sarnia to gain senior management commitment was a meeting with vice-presidents and general managers to

review the implications of the Philosophy Statement and to obtain their endorsement. In addition, at this time, a steering committee comprised of general managers was appointed to liaise on a continuing basis with the design task force. In this way, senior management maintained on-going contact with the project and was involved in key decisions.

A high level of union commitment was established by early communication with the National Director, and through extensive participation by the local union president and regional coordinator throughout the design.

Employee commitment was developed through extensive communications during recruitment, to assist them in making an informed choice as to whether they wished to work in this environment, and through the provision of opportunities for considerable participation in many of the design features. One example of such involvement was the process used to form the shift teams. These teams had not yet been established by the time self-management skills training was completed. This task was intentionally deferred as long as possible to allow members to get to know one another, since the plan was to give people choice with respect to both their specialty skill and the team to which they would be assigned on a permanent basis. A team formation committee, consisting of six nominated members and three coordinators, was established to manage the choice process and make the final decisions. Elements which had to be taken into account when considering team composition were distribution of skills, balance of experience/inexperience, age distribution, and membership compatibility. Each member was requested to complete a form denoting first, second, and third choices of specialty skills he/she would like to acquire and choices of peers he/she would like to be with on the same team. All of this information was processed by the team formation committee and, happily, just about all of the members' choices were accommodated.

An important element for the development of commitment is ownership. With this in mind, it was decided at Sarnia that all the people who would eventually be part of the organization should be involved in the design to the fullest extent possible. As a

consequence, a union-management socio-technical design task force was established, and as people were appointed to the new Chemical Plant, they became members of this group. What ultimately emerged – often as a result of compromise – was a design which this group was determined to make work.

This commitment to making the design work was absolutely essential to the survival of the project in its early stages. Starting up any new plant is difficult; translating a new philosophy into actual practice is an even greater challenge. Many of the unforeseen problems encountered at Sarnia were quite serious and could easily have overwhelmed a less committed group. Some of these issues included:

- management disappointment that operating instructions were not followed properly and expected tasks not completed, because of inadequate technical knowledge and audit systems at the start.
- scheduling and completion of multi-skill training turned out to be more complex than anticipated. This was particularly frustrating since pay increases are contingent on acquisition of technical skills.
- primarily because of the above two issues, management moved to appoint a temporary assistant coordinator for each team. A number of people viewed this move and the method by which it was carried out as being in violation of the Philosophy Statement.
- the process followed by management for coordinator selection was challenged, and subsequently resulted in the development of a new procedure allowing for input by team members.
- with a wage progression system based on demonstrated knowledge and skills only (i.e., no time or on-the-job experience constraints), there was a tendency for individuals to move too rapidly and operating inefficiencies resulted. In addition, the total level of skills acquisition originally stipulated to reach the top level was felt to be excessive. This caused considerable stress, which was rectified through a major modification of the system.
- generally there was a varied and rather unrealistic impression as to how quickly self-regulation could be achieved. On the one hand there was a desire on everyone's part to move rapidly in that direction, but this was countered by a



Participants in the Self Management Skills Training Seminar: Norm Halpern, Shell Consultant, Organizational Effectiveness; Jim McLeod, Shift Team Coordinator, Shell Sarnia; Don Jewell, Training Consultant.

realization that initially there were insufficient knowledge and skills in the system to do so. Since there were as many different views as there were people in the plant with regards to what constituted 'sufficient skill', this matter was a source of great frustration.

After having observed the pains and frustrations of coping with a new concept during the difficult start-up period, I have little doubt that there would have been a strong inclination to abandon the project if the group who had completed the organization design was not the same as the one responsible for its implementation and operation.

The preceding FOCUS article makes reference to the fact that commitment can be enhanced by allowing people to share their experience with others. While this has not been a deliberate strategy within Shell, it is my personal assessment that this has been one of the benefits realized through agreement to 'tell our story'.

Chemical plant personnel have been participants in numerous external conferences and workshops, and visitors from many parts of the Western world are frequently accommodated. The practice has recently been instituted of holding an Information Day on a quarterly basis, at which time the Sarnia experience is described by various members of the organization to both union and management from other organizations.

Early research conducted by Shell revealed that many organizations had experienced failure because they developed and implemented an innovative design and then walked away from it with the expectation that it would function as intended.

However, one cannot simply engage any group of people, thrust a Philosophy Statement in their hands, declare 'you are now a responsible, trustworthy, self-regulating team – go to it!' and expect a miraculous departure in behaviour from tradition. Many people would disagree with

the assumptions made in designing the new organization and would, therefore, have no interest in working in such an environment. Others for whom these concepts have appeal might be eager to join. However, in spite of all their good intentions and efforts, there is a strong probability that they would lack the necessary skills to function effectively in this milieu. This is particularly true if they have already worked in a traditional system, have been conditioned to behave in a particular fashion appropriate for that organization, and have developed attitudes and habits which would be in conflict with the new philosophy. Roles in plants designed to utilize extensive participation, problem-solving, and decision-making by all levels of personnel (often in groups) are decidedly different from those in traditional plants. Many people who are successful in traditionally structured organizations will not necessarily be effective in the newly styled ones.

Therefore, in order to successfully implement and sustain a novel organizational design, it is necessary to develop and maintain systems specially designed to ensure that the new organization works as intended. Consideration must be given to recruitment procedures; people need to develop a shared understanding of appropriate behaviour and to acquire suitably effective social and technical skills; on-going systems for self-management need to be developed; and changes may have to be made in such areas as remuneration, the industrial relations system, etc.

Employee recruitment program

1. *Team coordinators.* A decision was made by the Sarnia design task force to include a coordinator within each of the work teams. While this individual's role was rather vague at the time, it was envisaged that the coordinator would not simply be a replica of the typical shift supervisor, but rather would be a 'facilitator' and 'resource' person for the team.

The usual selection procedure would have been to approach the various operating locations across Canada indicating opportunities available at Sarnia and requesting management to nominate candidates for consideration. There was much concern, however, regarding criteria which



Some of Shell Sarnia's chemical plant coordinators attending a 5 day Role Clarification Workshop.

people who were not participants in the design would use to assess suitability for these positions. It was acknowledged that there was a need to be particularly selective in the case of the team coordinator, since this person would effectively be the site manager during the majority of the time. Consequently, the design task force recommended open advertising within the Company, allowing application from all. This somewhat radical step was discussed with management at the locations which might be affected and an advertisement describing the position was subsequently publicized.

Approximately 75 responses were received. The initial screening was done by the Chemical Plant Superintendent and an Employee Relations Supervisor who reduced the number of candidates to about 25. This latter group was then interviewed by an operating manager and an operations coordinator who, while appraising the overall person, concentrated on technical competency. This was followed by a two-hour in-depth interview by an external consultant for assessment of 'social skills' and personal characteristics. Interviewers then convened for a day, at which time ratings were compared and debated and a final selection made.

2. Team members. There were 108 shift team member positions to be

filled. Because past high attrition rates had left most of Shell's other operating locations with a relatively inexperienced complement, there was little opportunity to transfer Shell operating people into the new site. Therefore, except for a handful, the total workforce had to be recruited externally. Consistent with the philosophy, recruitment was handled by the team coordinators, with staff assistance from the Employee Relations function.

On the basis of experiences reported by others in the Sarnia area it was estimated that in excess of 2,000 applicants could be expected. (In fact there were 2,600.) Apart from the scheduling logistics, there was concern regarding the capability of inexperienced recruiters to assess the suitability of applicants. In addition, mechanisms were required to ensure that the applicants understood the organizational concepts proposed for this plant, so that they could make an informed choice regarding employment at the plant.

To assist in this regard, recruitment workshops were conducted. These were designed to:

1. Identify desirable characteristics for persons working in this environment;
2. Provide interviewers with skills to make such an assessment; and

3. Develop a suitable system for conveying information to applicants regarding the intentions for this work site.

(In consideration of the large numbers of applicants expected, this latter objective was fulfilled through establishment of information centres and the development of a video tape.)

Clarification of philosophy statement and roles

Although organizational design work was progressing well, it was evident that there were many interpretations of the various clauses of the Philosophy Statement, and the need was felt to attempt to reach a common understanding. Therefore, in October 1977, when all management and staff personnel had been appointed, a five-day residential workshop was convened. The purpose of this session was an extensive exploration and examination of the Sarnia Philosophy Statement to discover:

1. Its implications for formal and informal roles and performance expectations of all managers, coordinators and staff personnel.
2. Guidelines for resolving specific organizational problems – both technical and social – that arise in all plants and how these problems

may be handled differently at Sarnia.

3. How it may impact upon the personal 'managerial style' of each participant and what specific personal behaviours will support or hinder success at Sarnia.
4. Why psychological 'developmental contracts' between peers and others are required to support existing behaviours and to develop new behaviours that may be required.

Development of norms

By design, a minimum in the way of rules and regulations had been prescribed in advance for this plant, with the objective that members of the organization would be responsible for developing their own 'norms'. Shortly after team formation, a 28-hour structured exercise was undertaken for this purpose. Members were requested to identify areas requiring explicit specification of norms. Lists were generated by each team, discussed amongst all teams, and compromises negotiated where necessary. Following is a sampling of statements agreed upon:

- members will recognize responsibility to their relief (punctuality, information, housekeeping, safety).
- teams will assure equal opportunity for advancement.
- team decisions will be supported, even if a member is not in total agreement. Personal problems will

be kept confidential within teams, as long as they do not affect other teams.

- individuals are expected to attempt to reach the highest level of training within their capabilities.
- overtime meals will be supplied if needed.
- teams will be instrumental in choosing new members.
- teams will perform technical competence check-out of individuals and will be involved in developmental training.
- regular team meetings will be held.
- there is an expectation of individual sacrifice for the team benefit.

Self-management skills training

Even if complete agreement had been reached regarding behavioural norms for this novel organization and recruiters had been successful in selecting personnel with the personal characteristics appropriate for this plant, there would still be need for people to develop skills to enable them to function effectively. To address this need a 32-hour training program was conducted for all employees prior to plant start-up. Without detailing the contents of the course, aspects covered were:

- self-assessment, individual differences.
- group dynamics, task-maintenance concepts, observation skills, feedback, members' roles.
- group problem-solving, group decision-making, concept of leadership.

- competition vs. collaboration.
- communications.
- concepts of motivation and developmental discipline.

A significant deficiency in the Sarnia design arose as a consequence of the belief that these skills, acquired to a limited extent during classroom training prior to start-up, would be effectively transferred to the workplace. This turned out not to be the case. As a result, within a year a decision was taken to appoint a full-time internal resource person to work with the organization's membership on a continuous basis, to assist them in upgrading their skills while dealing with live issues. In addition, this person has been a valuable resource in the ongoing process of role and philosophy statement clarification. In the light of this learning, Shell's approach now in similar circumstances is to appoint such a person well in advance, so that they are involved right from the start in socio-technical design, recruitment, and front-end training – staying on as a member of the organization.

Marty Kaplan, Superintendent, Dick McFee and Gord Elliot, Operations Managers and Dick Perry, Union President ECW, at the time of start up of the Shell Sarnia Complex. They are shown here involved in joint discussions regarding design features of the Sarnia plant.



On-going systems for self management

To provide a formal mechanism for self management, a Team Norm Review Board (TNRB) was established, consisting of the following membership: one representative from each team, one team coordinator, one operations manager, the union vice president, and a representative from Employee Relations – for a total of 11 persons. The mandate of the TNRB was to: edit norms; interpret and disseminate norms throughout the plant; monitor team norms for appropriate consistency; suggest modifications to norms; support the teams in their attempt to uphold norms; receive recommendations from teams regarding norms and suggested changes; encourage utilization of developmental discipline; and deal with recommendations and requests from teams and members regarding problems and disciplinary issues. This board operates by ‘consensus to support’ with each member having veto power.

It was also recognized that, in order for the teams to function as self-regulatory bodies, there was a need to establish a system to ensure that certain internal functions were handled. Functional roles were identified, which are assumed on a rotating basis by members on each team. These typically include a chairperson, secretary/recorder, work and duty scheduler, training scheduler, vacation scheduler, social director, recruiter, treasurer, safety representative, TNRB representative and overtime distribution scheduler. There is also a union steward for each team.

It was agreed that all teams (including the management and staff teams) would meet regularly to review and assess how things were progressing vis-à-vis expectations, air problems, agree on necessary action, and set plans for the future. Minutes would be recorded of all sessions for distribution to everyone in the plant. Issues which could not be resolved at the team level would be referred to either the Team Norm Review Board, Management, or the Union-Management Committee. This latter group, composed of the union executive and senior management, meets at least monthly. The meeting agenda is generally largely devoted to review of ‘state of the nation’ against the Philosophy Statement,

role clarification, and matters raised by organization members requiring this level of sanction or resolution.

Reward systems

In the final analysis people will continue along a particular course if they perceive it to be more beneficial than an alternative one. What’s in it for members of QWL organizations that motivate them to ‘hang in’ in the face of many pressures to revert? The Sarnia design clearly incorporates QWL principles in provision of increased variety, opportunities for growth, more discretionary powers, social support, etc. Management benefits from having a more satisfied, more competent, more productive workforce, while the union has achieved for its membership a greater say in the management of their worklife. All benefit from having learned to resolve issues through problem solving rather than confrontation.

While the above gains may be adequate, at Sarnia there are also two very significant, more tangible benefits:

1. A wage progression system which provides an opportunity for everyone to attain the top wage rate on the basis of personal competence. There is no need to await vacancy in order to move.
2. The multi-skilling concept has permitted development of a work schedule for shift operators which substantially increases time on ‘days’, with many free weekends.

Industrial relations

The Sarnia QWL project is highly unique in the degree to which an attempt was made to extend self-regulation to the area of industrial relations. In line with a commonly accepted principle of socio-technical design, ‘The Principle of Minimum Critical Specification’, the collective agreement for this site was pared from about 70 pages to 7 pages. Accordingly, alternative mechanisms had to be provided for handling items normally included in the contract. This led to development of the Good Works Practice Handbook. Herein are located organizational norms, policies, and practices specific to the Sarnia Chemical Plant. This book is under constant review

by the organization and alterations need not await contract termination and traditional collective bargaining.

Transitional organization and continuous re-design

It is important to appreciate that different behaviours and norms are generally appropriate at start-up time as compared with maturity. One must think in terms of evolution towards an ideal objective as learning and experience are acquired. Unrealistic expectations of ‘instant Utopia’ can lead to frustration, organizational ineffectiveness and consequent rejection of QWL principles.

This recognition relates to another principle of socio-technical systems design – the ‘Principles of Incompletion’. The idea expressed here is that the design is never complete. One is continuously learning and modifying accordingly. It is, therefore, essential to institute a system for handling proposals for re-design.

The re-design mechanisms at Sarnia are the Team Norm Review Board or specially appointed ad-hoc task forces. To date considerable modifications from the original design have already been implemented. These include: changes to the work schedule, the development of mechanisms for distributing overtime, changes to progression/pay systems, alterations to staffing complement, establishment of minimum performance standards, re-design of quality control procedures, changes to warehouse staffing, alterations to training procedures, and the development of more participative methods for selecting team coordinators.

To adequately deal with the need for continuous re-design one must have information related to ‘how are we doing against the objectives set?’ It is necessary, therefore, to be able to define in measurable or observable terms what the objectives are, and what would constitute evidence of achievement. Thus far, evaluative data collection has not been formalized at Shell. The need for any redesign has generally been flagged through discussions at regular meetings or representations made by individuals. A task force has recently been established to address the issues of evaluation criteria and assessment.

Concluding thought

There are many forces in operation which tend to drive a change program back toward its original state. A key realization for us is the need to take into consideration strategies and mechanisms for survival and growth very early in the design process. It is not as though one can start dealing with this issue once things are well underway. Decisions made at the front end can have a significant impact down the road.

About the author

Norman Halpern is currently Consultant – Organization Effectiveness with Shell Canada. He joined Shell in 1955 following graduation from McGill in Chemical Engineering, and has worked in a number of senior technical and line management positions before assuming his present assignment. He also holds a masters degree in Adult Education, and is in process of completing a doctorate in this field. Norman has been a consultant for a number of socio-technical systems designs within Shell, including the Sarnia project described in this article.



CENTRE



The Ontario QWL Centre's display seen here at the 'QWL and the 80's' conference.

Major thrust is in action learning

The Centre has recently completed a major review and assessment of its activities during the past three years.

The work of the Centre is to remain largely unchanged. The program is a set of mutually reinforcing and interlocking areas. The primary thrust, that of developing and sustaining field projects, is amply illustrated with some twelve active field projects currently working. In addition, the areas of education and training of individuals, groups and organizations in QWL approaches will continue,

ranging from specific tailor-made events to general consultations. The process of collection and dissemination of information related to QWL theories and practices will continue through various activities of the information service and publications program of the Centre. Finally, the area of QWL research, whilst not a major focus of activity within the Centre, is seen as an area of importance that the Centre will continue to support both in a direct and indirect manner.

Field projects

In the project area, the Centre is experiencing an increase in interest

from several new areas: the retail food industry, public sector and also the health service area. Presently, the Centre has a dozen or so projects in progress, both redesign and greenfield. The Centre's project involvement now encompasses a wide range of Ontario's industrial and commercial sectors. The diversity of projects range from a uranium refinery; automotive production; design engineering; light and heavy engineering; synthetic rubber production; and, in the service sector, the retail food industry; warehousing at several locations in Ontario and a new project in the health field, encompassing both the public sector and mental health services.

Co-ordinators' network

The Centre has organized a network of co-ordinators of joint union/management QWL projects in Ontario. Five meetings have been held to date. In addition to exchanging information about developments in their respective projects, participants have discussed issues such as sustaining QWL, gainsharing, quality circles and QWL, and training in QWL projects.

World Association for Quality of Work and Life

Subsequent to the dissolution of the International Council for QWL at the 'QWL and the 80's' conference in Toronto last September 1, Basil Whiting, Executive Director of the Michigan QWL Council, has been exploring the various possibilities regarding the establishment of a World Association for Quality of Work and Life. Accepting this responsibility at the last meeting of the ICQWL, he has been in contact with a number of people within the field to develop some guidelines for a framework within which a World Association of QWL might be established.

Principally, a draft questionnaire has been developed by Lisl Klein (of

the Tavistock Institute) and Basil Whiting and circulated initially to the interim committee that is existing to bridge the gap between the dissolution of the ICQWL and the establishment of the new WAQW&L. It is expected to circulate a revised questionnaire to a wider audience at a later date.

Already identified as possible needs the WAQW&L should address are:

- that former members of the

International Council have a need to continue to communicate and interact as they have done in the past

- there is a group of interested and committed professionals and others who have expressed a need for World Association.

QWL display available

The Centre has available a folding display unit that presents the purposes and organization of the Ontario QWL Centre, together with a picture and word presentation of the principles of QWL. The unit, together with lighting and publication display shelves is available for short term loan to organizations, companies and unions, that are wishing to develop interests in QWL and could utilize such a display. Please contact

John Moorhouse, Editor, at the Ontario QWL Centre.

Introductory seminar

The Centre will be presenting a one day introductory seminar, 'The why, what and how of QWL,' in June.

Taking place in Thunder Bay in co-operation with Confederation College, this seminar will be of interest to the labour/management community and the public at large.

The program for the day incorporates both workshops and large group seminars. The views of management and of unions on the concept of QWL, together with the key stages and issues in the development of a QWL project are explored. Resourcing the seminar will be staff and associates from the Centre and practising field workers from both union and management orientations. For further information on this seminar and other educational events contact Jacquie Mansell at the Centre.

Canadian QWL news network

The Centre has established contact with several people across Canada, who are involved with QWL either as consultants, academics, or practitioners. These people have kindly agreed to provide items of current interest around and about the field of QWL on a regular basis. This aspect of the newsjournal is being developed in order to both strengthen the information service of the Centre and at the same time serve as an additional means of assisting in the QWL diffusion process. There is of course no exclusivity to this news-gathering network, and the Editor of QWL FOCUS would be very pleased to hear from readers who have information to share, either of a Canadian or International QWL nature. Copy can be telephoned in to the Centre or mailed direct to the attention of John Moorhouse, Editor, QWL FOCUS.

Publications

QWL Current Trends and Directions

The Centre has published another Occasional Paper, titled *QWL - Current Trends and Directions*: this paper is the third of the series 'Issues in the Quality of Working Life.' Written by David Jenkins, a well-known writer, observer and participant in



A reporting-back session at a recent 'Introduction to QWL Seminar' taking place at Brantford. Ninety or so participants from the Brantford area took part in this one-day seminar presented by the Centre.



Brantford Introductory QWL Seminar small group sessions: Tom Rankin [left] from the Centre staff discusses starting-up issues with participants.

the QWL field, Occasional Paper No. 3 is a status report on activities, theories and results, as reflected in the 'QWL and the 80's' conference, held in Toronto last September 1981. The paper summarizes some of the major themes, viewpoints, and questions raised by the speakers and participants at the conference.

David Jenkins has, by discussing his impressions of the conference in the wider context of the development of QWL, written an overview. By comparing presentations at the conference with experiences elsewhere and moving from both European and North American perspectives back again into the discussions of the conference, this synthesis will, we hope, lead to further dialogue, which will

itself assist in sustaining and diffusing the experience of the Toronto conference.

The Centre has a number of QWL publications that are available on request: the following titles are presently available and inquiries should be addressed to Janine Kitchen, QWL Publications, Ontario Quality of Working Life Centre, Ministry of Labour, 15th Floor, 400 University Avenue, Toronto, Ontario, M7A 1T7.

- The Ontario Quality of Working Life Centre – Organization Policy and Program.
- Perspectives on the Quality of Working Life – Proceedings of a conference hosted by the Ontario Quality of Working Life Advisory Committee in October 1980.

- Issues in the Quality of Working Life, a series of occasional papers: No. 1, *Dealing with some obstacles to innovation in the workplace*, by Jacquie Mansell.

No. 2, *The evolution of socio-technical systems, a conceptual framework and an action research program*, by Eric Trist.

No. 3, *QWL Current Trends and Directions*, by David Jenkins.

- QWL FOCUS – Newsjournal of the Centre, issues: Vol. 1, nos. 1, 2, 3; Vol. 2, no. 1.

An announcement from The Canadian Council

At the request of the Canadian Council on Working Life, the Centre is pleased to assist the CCWL by publishing the following announcement from the Council.

The Canadian Council on Working Life was created after the 'QWL and the 80's' International Conference, held in Toronto in August, 1981. Among the 1,700 participants were significant numbers of management representatives, trade unionists, academics, consultants and government representatives from across Canada. While the conference provided the immediate opportunity to work together and to identify concerns about working life issues, the Canadian Council will provide a continuing forum to focus on these concerns in the years ahead.

As a consequence of the Toronto meeting, nine individuals were nominated to form an interim Board of Directors. They are:

Don Adams, R.J. Clifford and Associates, Vancouver, British Columbia

Emile Boudreau (Vice-President, CCWL), Fédération des Travailleurs de Québec, Montréal, Québec

Joe Fabian (President and Chairman, CCWL), Polysar, Sarnia, Ontario

Carl Johnston, Air Canada, Montreal, Quebec

Art Kube, Canadian Labour Congress, Burnaby, British Columbia

Jan Mears, Treasury Board of Canada, Ottawa, Ontario

Navin Parekh, Public Service Alliance of Canada, Ottawa, Ontario

Jocelyne Savoie (Secretary/Treasurer, CCWL), Institut National de Productivité, Montréal, Québec

Stu Sullivan, Energy and Chemical Worker's Union, Sarnia, Ontario

Having brought together on the Board managers, trade unionists, public servants and consultants, the Council is now in the process of planning a business meeting and conference to be held in Toronto, October 23-26, 1982.

An effectively functioning Council can be a significant resource for assisting and re-enforcing the work of individuals, interest groups and regional organizations. Contributing and sharing experience, learning, gaining benefits and providing and receiving support - this is the essence of membership. The accomplishments of the Canadian Council will be in direct proportion to the interest, concern and activity of the membership. The broader the base of an active membership, the greater the potential of the Council.

To this end, the interim Board of Directors extends an invitation to all Canadians interested in and concerned with working life issues to become members of the Canadian Council on Working Life. Membership fees are being kept at a cost that will assist individuals in the decision to become active participating members.

For further information, contact Jeannie Cohen, Executive Assistant to the Canadian Council on Working Life, 1230 Danforth Ave., Toronto, Ontario M4J 1M6, (416) 461-0808.

CLEARINGHOUSE

Recent developments

Canada

QWL at Harrison Hot Springs sponsored jointly by the Canadian Labour Congress and the British Columbia Federation of Labour, this is the third time that this course on QWL has been offered at the winter school. Presented from a labour perspective, the course attempts to provide an objective view of QWL through the process of small groups, reviewing well-known case studies, simulation exercises and critical evaluation of the major theories and definitions of QWL. Susan Sanderson coordinated the course with Clive Lytle of Simon Fraser's Continuing Education Department.

The University of Victoria, School of Public Administration, has just added, at the master's degree level, a

management course on QWL.
[Notes from Bart Cunningham.]

University working groups to examine impact of micro-electronics technology on QWL - At Queen's University, an informal working group has been set up to examine the impact of micro-technology on the university itself, particularly the impact on curriculum as well as on jobs both for the teaching and support staff.

A parallel group, made up of professors from the business and engineering schools, is beginning a project to take an in-depth look at the micro-processor, the quality of work life and the organisation of work. The group is able to include some technical specialists in very large-scale integration (VLSI is the technique of reducing the circuits and switches on to the chip itself) and some produc-

tion specialists. The emphasis of the project is primarily on examining the impact on people, partly on employment opportunities, largely on how the nature and quality of work will change.

Queen's University will be sponsoring a conference on the impact of micro-processors on society, to take place later this year. People interested should contact Dr. Elia Zurick, Department of Sociology, Queen's University, Kingston, Ontario.
[Notes from Don Nightingale.]

Ontario Federation of Labour think tank - The education committee of the OFL has, over the past year, in conjunction with the Niagara Institute, held three mini-conferences entitled 'Unions and the Future'. Using a variety of resources, these sessions have covered topics such as demography, changes in technology, public opinion of unions and union goals, the structure of work, socio-technical approaches in work redesign, and the changing attitudes of workers today.

Taking place last August, December and February, the sessions were attended by full-time union staff from the OFL and other affiliates. What is planned for this June is a think tank that will encompass the learning and ideas originating from the past sessions and will look at the key issues, including QWL and socio-technical systems, that Labour will be facing over the next ten years. Attendance will be open to those people who attended the earlier sessions.

[Notes from Ray Hainsworth.]

Atlantic provinces – The Canadian College of Health Service Executives has asked Jack Dougall, Director of the Advanced Management Centre at Dalhousie University, to act as a resource person for four half-day orientations to QWL Sessions which will take place during May in Gander, Charlottetown, Moncton and Kentville.

The Advance Management Centre of Dalhousie has a ten-day Human Resources Management Course which is run in different cities throughout the Atlantic provinces. This course, spread over several weeks, includes a half-day orientation to QWL. To date some 300 supervisors and managers have attended this course.

[Notes from Jack Dougall.]

Federal QWL – Treasury Board Secretariat QWL Unit is now directed by Ms. Jan Mears replacing Mr. Jas M.M. Gibson who directed the unit until his retirement in June 1981. Ms. Mears has held various positions within the Public Service. Her background includes experience in a number of personnel areas as well as direct experience in a QWL project within a government department.

QWL-Federal Public Service – The QWL unit of the Treasury Board Secretariat circulates a bi-monthly newsletter in French and English that features information and notes related to QWL projects within the Federal Service. Distribution is aimed at senior managers, union officials and personnel departments within the Federal Service.

The QWL unit has organized a network of QWL interested people in the Ottawa area, presently within the public sector, but it is intended to extend this to those people in the private sector who are involved with or interested in QWL. The Ottawa net-

work met with Canada Post last November to hear how the Post Office prepared for, and then implemented, a QWL project within the headquarters' data processing department.

The second meeting of the network took place in February 1982. A presentation by Tom Rankin of the Ontario Quality of Working Life Centre outlined the present program of the Ontario Centre. Future meetings will feature presentations from QWL sites within the Federal Service.

The QWL in conjunction with the Ecole des Hautes Etudes Commerciales has recently carried out a five-day residential course: 'Orientation to QWL and the Public Sector'. Presented in French, the course was attended by line managers, union representatives and personnel managers of the Federal Service, as well as some members of the Quebec public sector. This course took place in February, 1982 in conjunction with York University's Faculty of Environmental Studies. In English, the course will be attended by both Federal public service employees and people from local and provincial municipal governments. This course has been developed by the QWL unit in conjunction with Labour Canada. It is anticipated that the course will be presented again in the late spring of 1982.

[Notes from Jan Mears.]

Radio credit course about people at work – 'Psychology in the workplace: people, jobs and organizations', a radio university credit course offered by Ryerson Polytechnical Institute. Relevant theories and research in the areas of social and organizational psychology are explored in order to give insight into the way work affects people and people affect work. For further information call 416 595-0485 or write CJRT FM 297 Victoria Street, Toronto, Ontario, M5B 1W1.

Quebec Val D'Or Co-management – Industry, Commerce and Tourism Minister, Rodrigue Biron, says the Quebec government is considering a program aimed at encouraging worker co-management in private industry. The minister said the program, which should be under way by 1983, will have 'certain fiscal advantages' for companies willing to increase worker participation in management. The program would encourage companies to put union

representatives on company boards, let them participate in day-to-day management of local plants and 'participate in company profits and purchase company shares' Biron said. The minister said such programs might help the province avoid interminable labour conflicts.

'The Quebec government is leaning seriously towards a plan encouraging worker participation in management in an effort to increase productivity and eliminate the need for scabs, strikes and lockouts at the rate we now experience them' said Biron. 'Instead of only using workers' muscles, we want to use their heads, their creative capacities and their ideas; but' he said, 'we don't want to force companies to accept co-management, we want to make an alternative available to the present system in which there is constant confrontation'. The minister was speaking at a convention of Quebec industrial commissioners in this northwestern Quebec city last October.

Australia

Growing pressure from the Australian trade unions to introduce a 35-hour working week to help to reduce unemployment has resulted in a major report published by the National Employers' Industrial Council, which concludes that there is no valid or social case for reducing working hours. It maintains that most employers would not increase their work force, but would either move towards greater mechanisation or reduce their level of service, or resort to more overtime. The report says it has been calculated that it would take no less than seven years for production to recover its present level.

France

The National Council of French Employers (CNPF) and a number of central workers trade unions signed a 14-point protocol agreement on July 18, 1981, after negotiations which had been going on since 1978. In this agreement there is to be an annual general holiday of five weeks, workers will not have to make up time taken off for public holidays, legal hours of work are to be cut from 40 to 39, although it has been left to each industrial sector to negotiate how this is to be phased-in during the year. Negotiations to decide ways of

implementing the agreement to make the five-week annual period of leave general are in progress.

India

National Seminar on Improving Quality of Working Life – Last January 1982 the National Productivity Council in collaboration with the Public Enterprises Centre for Continuing Education, New Delhi; Department of Personnel and Administrative Reforms, Ministry of Home Affairs, Government of India, and Central Labour Institute, Bombay organised a National Seminar on Improving Quality of Working Life. The themes discussed during the seminar were:

- concepts of QWL in an Indian situation;
- interlinkage between quality of life and quality of working life;
- developing a strategy for initiating the QWL activities in government, industry, public utilities and service organisations; and
- stabilisation of a successful project and its extension.

For information: A.N. Saxera, Executive Director, N.P.C. Productivity House, Lodhi Road, New Delhi 110003.

Portugal

Following the success of their first workshop in 1981 on 'Participative Re-design of Work Organization', CIFAG, the Business School of the Institute of National Enterprises of Portugal, have sent a report of their follow-up three-day workshop. This took place in the foundry of a large metal works. The site was chosen because of its poor working conditions, among other things, and the necessity for group work. The vertical 'slice' group involved consisted of eight people – the foundry manager, foreman, production planning officer, maintenance officer (the only union representative in the group) and four foundry workers. The first day was spent in raising problems; the second on the structuring of the problems and agreement on priorities; and the third in a general search for alternative forms of organisation and ways of solving the problems – the setting-up of 'mechanisms' for problem solving, effect of project attitude on action and process structure. Each evening was spent in analysing the day's 'search' and pre-

paring an action program for the next. The process structure in this workshop was reached more rapidly and clearly than CIFAG's first attempt, and the enthusiasm of the participants was summed up in their comment that the staff had not only taught them the process but had taught them 'how to think'. The Portuguese have benefitted by their association with their opposite numbers in Spain and Italy, and organized a seminar on 'Action-Research Methodology' between all three countries in order to strengthen relations between CIFAG and institutions of the other countries who are actively involved in the processes for 'New Forms of Work Organization'.

Those who are interested in co-operating with and participating in Portugal's attempts to improve working conditions and the quality of working life should write to: Dr. Claudio Teixeira, Instituto das Participações do Estado E.P., Avendida Júlio Dinis 11, Lisbon 1, Portugal; tel: Lisbon 76 15 57; telex 14176-IPELIS P.

Scandinavia

A new Nordic convention on social security, which came into force on January 1, 1982, was formally signed by Sweden, Norway, Iceland, Finland and Denmark on March 5, 1981. This provides for citizens of all these countries to have the same rights, health insurance, pensions, parental insurance, unemployment benefit, industrial accident insurance, family allowances, etc., and enjoy complete social security no matter where they live within this region.

United States

Work-in-America Institute and Pergamon Press sign co-publishing and worldwide distribution agreement – In January 1982 it was announced that J.R. Rosow, President of Work-in-America Institute and R. Maxwell, Chairman of Pergamon Press had concluded an agreement for co-publishing and world-wide distribution of the various publications from the Institute. The national *Policy Studies* remains the cornerstone of the Institute's publishing program. *Studies in Productivity* will continue to be published as individual volumes. Pergamon Press, which publishes over 350 international

journals, will also produce and distribute the Institute's monthly newsletter, *The World of Work Report*, as well as other related books on productivity and the quality of working life.

Recent events

Canada

Union and management designing jobs for the changing workplace – March 21-26, 1982, Fairmont Hot Springs Resort, Fairmont Hot Springs, B.C. This five-day course featured in-depth studies presented by union and management representatives who have been directly involved in 'landmark' application of organization design. Case studies examine both the redesign of existing jobs and the development of a new work organization. The course introduces concepts and teaches skills that will enable managers, supervisors, union officers, employees, staff specialists and engineers to design and redesign jobs and work organizations that will meet the changing demands of the workplace. Conducted by B.C. Research in cooperation with Furst Consulting Ltd. For more information: Sue Burton, B.C. Research, 3650 Wesbrook Mall, Vancouver, B.C. V6S 2L2.

Quality of Working Life Seminar, Brantford, Ontario – in November, 1981, Mohawk College, in association with the Ontario Quality of Working Life Centre, held a one-day introductory seminar on QWL – 'the why, what and how'.

Conference Board of Canada – the Conference Board of Canada sponsored its eighth annual Compensation and Human Resources Conference on January 2, 1982, in Toronto. The meeting opened with an overview of the Canadian economy, setting the scene for discussions of: industrial relations from labour's view, a comparison of Canadian and U.S. earnings, and executive compensation. Two afternoon sessions were held concurrently. One focused on how the quality of worklife and employee participation helped to reduce industrial strife and to increase productivity. The other examined how technological change will affect jobs in the future.

B.C. Forum – at the time of FOCUS going to press, B.C. Forum had just



completed its session on 'Middle Management and Supervisors in QWL Initiatives', attended by approximately 90 management, I.R. people, with some government and union people. The second day was a follow-up session on the same topic, again with Ernesto Porga. This all-day session was for a small group of five organizations and designed to address specifically their concerns on what they are wishing to do and/or are trying to do. This is the first time that B.C. Forum has facilitated in this way some inter-organizational learning.

The B.C. Forum is actively spreading out, holding sessions in Prince Arthur and in Nanaimo, Vancouver Island. (See Forthcoming Events, Canada for more information on B.C. Forum 1982 Calendar.)

[Notes from Dag Furst.]

Israel

International symposium/workshop on QWL, community development and beyond – this event was rescheduled to take place at the beginning of January 1982. Consideration is being given to publication of conference proceedings and papers. For further information: Miss Ronit Dayan, Administrative Coordinator, QWL Conference, Humphrey Centre for Social Ecology, Ben Gurion University of the Negev, Beer Sheva 84120, Israel.

Netherlands

The Dutch Social and Economic Council (COB-SER) have published an interim report on the programme of experiments in co-determination ('medezeggenschap'). This evaluation, together with others relating to work restructuring and official institutions, will be presented to the meeting arranged with the Association (The Hague, 2-4.vi). COB has also published policy statements on its QWL, business techniques, management and distribution research.

Switzerland

An expert committee of the Swiss National Fund has prepared a tentative programme for research in humanization and technological development, which is being submitted to the Federal Council (Bundesrat).

'Re-thinking and planning for organizational effectiveness: an international workshop'; 12-17 October 1981; Hotel Château Gutech, Lucerne, Switzerland – the purpose of this workshop was to provide a special setting in which directors, chief executives and senior officers from different countries could explore and experience current managerial and organisational issues. The workshop was organized by Harold Bridger of the Tavistock Institute of Human Relations, and Leopold Vansina of the International Institute for Organisational and Social Development. The work was not limited only to the conceptual understanding of current managerial and organisational issues, but included the operational implications for people in key leadership roles and for their organisations. Further information can be obtained from: Dr. Leopold Vansina, IOD, 55 Predikherenberg, B-3200 Kessel-Lo, Belgium; tel: 016.25.1671.

United States

QWL Conference at Ohio State University – a Conference on the Quality of Working Life was held at the Ohio State University, Newark Regional Campus, on December 12, 1981.

The Conference was organized as a general introduction to QWL for business and industry people in the area. Dr. Shirley Palmer, OSU Sociologist, gave a general introduction to the field of QWL, followed by Dr. Kurt Southam, Manager of Personnel Services, Cooper Energy Services, who spoke on quality circles from a business and industry perspective.

A union perspective on QWL was presented by Bill Horner, formerly of the United Auto Workers, and now with the Michigan Quality of Working Life Center.

Current research on QWL and collective bargaining, Japanese versus American systems of productivity management, and possible American use of some Japanese human resource practices, was presented by Dr. Donald Ronchi, Dr. Nan Weiner, and Dr. Lee Krajewski respectively, all from Ohio State University.

The participants in the Conference were mainly middle management people and engineers.

National network of Productivity and Quality of Working Life centres – the annual conference took place March 31 to April 2, 1982 at the Centre for Productivity and Quality of Working Life, Utah State University, UMC35, Logan, Utah 84322. For more details: Gary B. Hansen, above address.

Forthcoming events

Canada

B.C. Worklife Forum, 1982 program – established in 1980 (as the Quality of Working Life Forum of B.C.), the Forum works to encourage open discussion and understanding of issues and initiatives to promote worklife improvement. Subscribers now include both public and private sector organisations, trade unions, consultants and academics. Individuals participating in Forum activities represent a cross section of B.C. industries at all organizational levels, from shop floor workers to senior management. In 1981 the name of the group was changed to reflect the broad range of worklife issues which are of interest to the membership.

There will be seven meetings of the Forum in the greater Vancouver area during 1982.

For the first half of the year the following sessions are planned. *Profit sharing*: an overview of applications in North America and a case study involving union and management from a B.C. organisation; *Job design in the office*: a presentation and discussion of the concepts of job design as applied to the office environment. A case study will be featured; *The new role of the supervisor in QWL*: how to deal with problems experienced by supervisors, based on a study of eight innovative work organizations in North America. The Forum acknowledges sponsorship by the B.C. Ministry of Labour and Labour Canada, of seminars designed to promote improvement in the working environment, job design and productivity. Information from B.C. Worklife Forum, c/o S. Burton, 3650 Wesbrook Mall, Vancouver, B.C. V6S 2L2.

One-week introductory QWL course, Montreal – the QWL research unit of the Ecole des Hautes Etudes Commerciales, in Montreal, is providing a one-week course introducing QWL to some 25 negotiators from the Centrale de Syndicats Democratiques. This course, taking place in May funded by Labour Canada, will deal with QWL from a labour view point.

[Notes from Maurice Lemelin.]

Concordia Centre conference – on October 1 and 2, 1982, the Concordia Centre for Management Studies, Concordia University, Montreal will be holding its second Quality of Working Life conference. A number of experienced practitioners, consultants and academics will discuss issues regarding initiating and maintaining QWL. For more information contact Robert J. Oppenheimer, Department of Management, Faculty of Commerce and Administration, 7141 Sherbrooke Street West, Montreal, Quebec H4B 1R6.

United States

Northeast Labour-Management Centre's QWL Institute – 1982 schedule of workshops and events: March 11-12 Dr. Malcolm Knowles, 'The adult learner in the workplace'; March 23-24, 'Management's challenge: developing employee involvement programs'; April 12-15, Dr. W. Edward Denning, 'Improving quality and productivity'; April 21-22, Professor Len Schlesinger, 'Supervisors and Managers in QWL and QWL programs'; May 6, first annual meeting QWL Association; June 14-18, 'Training for employee involvement, coordinators and workteam facilitators'. Further information: QWL Institute, 30 Church Street, Suite 301, Belmont, MA 02178.

International industrial study mission to Japan: 'Productivity and Quality of Work Life'; June 5-20, 1982 – this study mission is being organized by the Technology Transfer Institute (a New York based Japanese consulting firm) in cooperation with the Texas Center for Productivity and Quality of Work Life.

The aim of the event is to give managers an on-site opportunity to observe the strategies, processes and structure of selected Japanese organizations that are widely recognized

for their innovative approaches to productivity and quality of working life. The focus will be on high technology-based organisations and the effective use of human resources.

Further information can be obtained from: W. Jenkins, Project Manager, Technology Transfer Institute, One Penn Plaza, Suite 1411, 34th Street, New York, N.Y. 10119, U.S.A.

The ecology of work – 'Improving productivity and the quality of work life': a 2½ day working conference featuring innovations in the workplace aimed at improving productivity and the quality of working life, sponsored by NTL Institute and the OD Network. Registration will be limited to 300. June 9-11 at Marriott Greentree, Pittsburgh, Pennsylvania. Preliminary conference registration: Judy Leibowitz, NTL Institute, P.O. Box 9155, Rosslyn Station, Arlington, VA 22209.

Organizational development network – first annual conference taking place on September 29-October 6, 1982. Theme, 'Breakthroughs: creating a world that works'. For more details: Jim Donovan, Chicago OD Network Clearinghouse, c/o Harris Bank, Training and Development, P.O. Box 755, Chicago, Illinois 60690.

REFERENCE

The Ontario Quality of Working Life Centre operates an information service which includes the distribution of information kits, brochures and articles, etc., the performance of literature searches, and the publication of papers on QWL. For information contact: Janine Kitchen, Coordinator, Ontario Quality of Working Life Centre, tel: 416-965-5958.

Selected readings



The following articles are a sample of some articles which deal with the theme of this issue 'Sustaining QWL'. They are available free of charge from the information service.

Articles

Walton, R.E. *Establishing and Maintaining High Commitment Work Systems*. In 'The Organizational Life Cycle', Issues in the Creation, Trans-

formation, and Decline of Organizations. John R. Kimberly, Robert H. Miles and Associates (Ed).

Jossey-Bass Inc., New York 1980 pp. 208-290. Walton examines the development of innovative work structures within four U.S. plants identified as high commitment work systems. He outlines the steps and stages of the processes over several years. The assessment of success and failure of the respective projects are evaluated against a set of theoretical propositions that Walton suggests are recognizable as structures and issues that need to be considered if projects of this nature are to be sustained. Some major points stressed are: the importance of leadership; the role and need for organisational consultation, the recognition that theoretical propositions developed from the four case studies, may or may not have validity when applied to other commitment work systems and hence may need modification; the human resources gap as it relates to the skills required by the technology and the skill bank currently possessed by the workforce; the relationship between incentive structures, member involvement and the meanings attributed to the incentives.

Goodman, P.S. and Deans, J.W. *Why Productivity Efforts Fail*. Background paper for presentation at American Psychological Association, L.A. Calif. 1981 on 'QWL and the 80's' Conference, Toronto 1981.

Many programs of organizational change, while initially successful, do not persist. Goodman and Dean have conceived of persistence or institutionalization as occurring by degrees, ranging from knowledge about the behaviours associated with the program to values supporting these behaviours. Five processes which affect the degree of institutionalization have been identified, and aspects of the structure of the change and organizational characteristics which affect the processes were also examined. Finally, recommendations, based on their findings, are enumerated as to what managers can do to facilitate persistence of change in their organization.

Cherns, A. *The Principles of Socio-technical Design*. Human Relations, Vol. 29, No. 8, 1976 pp. 783-792. Cherns discusses some principles of organization design, and comments on the use of various approaches and

means to foster their use in practice. In brief, these can be listed as follows: 'Compatibility' – the means to design must be consistent with the end to be achieved; 'Minimal critical specification' – at each stage of the design what is critical should be identified, and that only should be specified; 'Variance control' – if variances cannot be eliminated, they should be dealt with as near to their point of origin as possible; 'The multifunctional principle' – design the organization so that it can achieve its objectives in more than one way; allow each unit a repertoire of performance; 'Boundary location' – roles that require shared access to knowledge or experience should be within the same departmental boundaries; 'Information flow' – information systems should be designed to 'Support congruence' – the system of social support should be designed to reinforce the behaviours that the organization structure is designed to elicit; 'Design and human values' – a prime objective of organizational design should be to provide a high quality of working life to its members; 'Incompletion' – design is an iterative process; the closure of options opens new ones, and at the end, we are back at the beginning. (Ed Note: Subsequent to this work Chernes added another principle, that of 'Transitional organization' – there is a changeover period from old to new that requires a transitional organization.)

New publications

Technology and the workforce, an annotated bibliography. Authored by Bill Ford, Margaret Caffey, and Dexter Dunphy of the Department of Organizational Behaviour, University of New South Wales. Copies are available from this department, University of New South Wales, P.O. Box 1, Kensington, N.S.W. 2033 Australia. This work is a select, classified and annotated bibliography of studies and citations published in the 1970's on the inter-relationship between technology and the workforce in industrialized countries. Containing over 480 citations from the international literature concerned with the effects of technological change on the working life and the workforce, the bibliography has been compiled from both manual and computerized searches. Documents cited include monographs,

journal articles, government reports, published conference proceedings, and mimeos. As a classified bibliography, there is quick access to all materials relevant to a particular aspect of technological change. Its major divisions are: general works on studies, studies of particular industries, conditions of work, industrial relations, organizational management, and technology and society. The classification scheme is complemented with a series of indexes, author, title, journal title, etc.

The Niagara Institute 1982 program: the Institute publishes *Agenda* three times a year listing confirmed programs. Programs at Niagara are organized in five main program areas: Human Values; Corporate/Government/Union Operations; Management of Change; Client Services; Forum on Critical Issues. For copies of *Agenda* or information contact: Elizabeth Katz, Box 1041, Niagara-on-the-Lake, Ontario, L0S 1J0 (416) 468-4271.

Organizational change by choice by Dexter Dunphy in collaboration with Robert Dick. McGraw-Hill Book Company Australia Pty. Limited, 4 Barcoo Street, Roseville East, P.O. Box 239, Roseville N.S.W. 2069. This book aims at providing organizational activists with effective strategies for managing change. Emphasis is given to the range of alternatives available, without advancing particular solutions or propagandizing for particular organizational goals. Advocating 'responsible choice', the authors have aimed to 'demystify' current approaches to organizational change; to expose important knowledge that has developed in this field, to expose it to debate and criticism, and make it available for general use.

The book is written in a clear, jargon-free style of concise summaries, together with appropriate case examples which are provided for each of the change procedures and strategies discussed. The book is directed to those who are actively involved in managing organizational change, whether within organizations or as external consultants.

Impact of Micro-electronic Technology on the Work Environment. The proceedings of the conference held in Ottawa, Ontario, March 1981 are now available from Women's Bu-

reau, Labour Canada, Ottawa, Ontario, Canada K1A 0J2. (Editorial Note – this conference was reviewed in QWL FOCUS Vol.1, No. 3 August 1981.)

National Productivity Review, the Journal of Productivity Management Vol.1, No.1. National Productivity Review, 33 West 60th Street, New York, New York, 10023, U.S.A. The journal is designed for management professionals who are responsible for improving productivity in their organizations. The first issue includes articles by Horner, Ketchum, Lawler and Deming among others.

The Texas Center for Productivity and QWL: a report of the work of this Center and its objectives, mandate, and philosophy of QWL Center and productivity. Available from Barry A. Macy, Director, The Texas Center for Productivity and Quality of Work Life, College of Business Administration, Texas Tech University, P.O. Box 4320, Lubbock, Texas 79409.

Industrial Democracy in Europe; European Industrial Relations by IDE-International Research Group, London, Oxford University Press 1980.

The IDE International Research Group has now finished its first comparative research on the impact of 12 national industrial democracy models on the distribution of power and influence in work organizations. The international collaboration of the team of some 25 social scientists was, among others, supported by the Thyssen Foundation (Cologne), the Ford Foundation (New York), the Maison des Sciences de l'Homme (Paris, under the auspices of its EGOS-programme), and the International Institute of Management (Berlin). Several collectively authored journal articles have already appeared on the work of the IDE team.

The first volume contains a systematic international comparison of the effects of legal and other formal provisions for industrial democracy and their interaction with organizational and technological factors. A new methodology was developed to measure formal norms in legal documents for comparative purposes. Behavioural data were obtained from interviews of nearly 9,000 randomly selected employees and close to 1,000 'expert respondents' from

134 industrial and service organizations (closely matched by size and technology). The interviews refer to the influence and involvement of individuals and relevant actors in organizational decision-making and their attitudes towards work, their organization, and the functioning of existing participation machineries.

Influence and involvement, the study concludes, inter alia, are mainly predicted by formal norms and other social and political factors (e.g., leadership style and employee mobilization) rather than by technological, structural, or economic factors.

The second volume (European Industrial Relations), also collectively authored by the IDE-International Research Group, provides standardized qualitative country-by-country background reports on the socio-political and legal contexts of the 12 countries participating in the IDE-study: 10 West European countries, Yugoslavia and Israel.

The Behavioural Sciences and Industrial Relations (Some Problems of Integration): edited by Andrew Thomson and Malcolm Warner. Gower Publishing Co. Gower House, Croft Road, Aldershot, Hampshire, GU11 3HR. This book is based on a conference sponsored by the Foundation for Management Education and examines the uneasy relationship between the behavioural sciences and the practice of industrial relations. The conference comprised many of the leading academics in the field, together with a number of industrialists. Contributors from Europe and America added a geographical dimension to the industrial, educational and academic aspects of the conference. The paper presented here points to possible ways forward to bridge the gap between theory and practice and thus improve the overall quality of industrial relations.

Social Indicator Australia 1980. A national social report by the Australian Bureau of Statistics. Cat. No. 8014545. AGPS Mail Order Sales, P.O. Box 84 Canberra ACT 2600. The third edition of this analysis of social fact and figures concerning the people and the nation.

Tomorrow's Office Today by David Birchall and Valerie Hammond. Janie Nicholas, Business Books, Freeport 5, London WE1 4QZ, England. In the U.S.A. or Canada,

Renouf USA Inc., Brookfield, Vermont, or Renouf Publishing Co. Ltd., Montreal, Quebec. This book offers a practical framework to assist in dealing with the introduction of new technology into office settings. It attempts to show how to achieve the promised benefits of new technology whilst improving job satisfaction. The need for adequate training dealing with suspicion and low morale, how to approach and re-design jobs and work organization, are some of the topics that are covered. The book offers a number of cases studies as illustrations of its major points.

Kendall, P.M.H., et al. (1980): The Impact of Chip Technology on Employment and the Labour Market; Metra Consulting Group Ltd., 23 Lower Belgrave Street, London SW1W 0NS, England. This report is the result of a study commissioned by the Dutch Ministry of Social Affairs. Its purpose was to discover what was known about the impact of micro-electronics on employment and skills. The report covers two aspects: (1) 'The Consequences for Employment - whether or not there is a temporary or permanent reduction in the global demand for labour' and (2) 'The Consequences for the Labour Market - a sufficiently suitable supply for the anticipated demand. What new pathways? Which professional categories will become superfluous?' The appendices are concerned with the original brief of the Ministry, and 'possible lines for further research'.

Langenheder, W. and Geissler, C. (1981): '*Catalogue of Research Projects on Social Impacts of Information Technique*'; (Gesellschaft für Mathematik und Datenverarbeitung MBH (GMD), Postfach 1240, Schloss Birlinghoven, D-5205 St. Augustin 1, West Germany. This catalog is the result of a survey carried out in 1979, which is to be updated in 1982. It consists of a list of research institutes, universities, and other organizations and their past or on-going projects; and a list of research funders and contractors. In order to compile a comprehensive up-date, the authors have prepared a questionnaire, which is available on request, for those organizations who wish to have their projects included in the catalog. They are equally interested in completed work as well as on-going projects and those at the planning stage.

European Foundation for the Improvement of Living and Working Conditions, Loughlinstown House, Shankill, Co. Dublin, Ireland. This report is an up-dated and abridged version of the 1979 report, originally carried out by the Danish Institute for Organization Studies. The original report was evaluated at a seminar held in Copenhagen in April 1980 by representatives from trade unions, employers and government. The report consists of each group's evaluation of its field experience of working conditions.

Training and Organization of Work in Italy (1981). This study was carried out first by researchers of the Istituto di Ricerci Intervento sui Sistemi Organizzativi in Milan, and then evaluated by representatives of trade unions, employers and government. It is divided into three parts: the influence of organizational change on training systems, based on an analysis of six case studies; the definition of a conceptual framework of actual training needs related to the requirements of organizational change; and a synthesis of the results of a study of three public vocational training centres in Lombardy, which examines the relationships between changes in training needs, and the principles, content and methods on which the public training system is based.

Attitudes towards shiftwork of industrial shiftworkers in Shannon, Ireland (1981). The research for this volume was carried out by Dr. E. McCarthy of the Organizational Psychology Research Unit, University College, Dublin. The main objective for his research was to measure salient attitudes towards shiftwork of both workers and management, and to identify critical factors which influence these attitudes. The other was to measure any change in attitudes since the earlier study undertaken in 1969.

At a colloquium held in Dublin in March 1980, this study was evaluated by representatives of government, trade unions and employers, based on work group meetings.

The working environment at Visual Display Units: a review of the literature 1981. This study was one of the main themes of the European Foundation's 1977-80 rolling program.

"Although it is part of an ongoing research effort", they say, "it was found acceptable to publish it separately at this point, as it gives an initial overview of problem areas associated with VDUs and the working environment and can therefore highlight some of the areas of concern of the European Foundation." It contains articles on such subjects as: 'Problems associated with the office use of VDUs: the main ergonomic issues' (O. Ostberg); 'Lighting conditions at VDUs' (E. Petersen); 'Other environmental factors: heat and noise' (V. Pedersen); 'An ergonomic check-list for work-place design' (A. Saaby-Johansen); and 'Visual demands of VDU work from the psychological standpoint' (V. Dreyer). There is also an extensive list of references.

Bradley, K. and Gelb, A. (1981): *Motivation and Control in the Mondragon Experiment*; Br. Jour. Indust. Relas. Vol. XIX, No. 2 July 1981, pp. 211-231. The article covers the history of the Mondragon scheme, and sets out to ascertain whether its commercial success can be attributed to cooperative organization rather than to factors such as good conventional management and access to capital. The authors suggest from a survey and interviews that cooperative organization has contributed significantly to its success.

European Foundation for the Improvement of Living and Working Conditions: *Catalogue of Publications in Print in 1981*; Loughlinstown House, Shankill, Co. Dublin, Ireland. The catalog is divided into two sections covering the main areas of research which form the basis of the Foundation's activities. The first - 'Diagnosis of the situation' - covers surveys of work organization, shiftwork, and safety and health; the impact of new technology, wage payment systems, and official statistics on working time. The second part consists of an 'Assessment of means of improving working and living conditions'. It details innovations and experiments in work organization; participation and work organization; training and work organization; and innovations in shiftwork, including case studies.

Gustavsen, B. and Hunnus, G. (1981): *New Patterns of Work Reform: The Case of Norway*; Columbia University Press, New York, 207 pp; U.S. \$11.00. The concern of this

book is with labour relations in Norway. The authors cover such aspects as: the Industrial Democracy Program; employee representation of the Board of Directors and the Company Assembly; the background of the work environment reform; and a critique of the conventional approach to safety and health at work: the merger between work environment and participatory democracy; and the Work Environment Act of 1977 - legislation in support of local activity. There are concluding remarks on work reform, and contemporary problems in Norwegian society. An appendix covers selected parts of the Act relating to worker protection and the working environment.

European Trade Union Institute (1981): *Collective Bargaining in Western Europe 1980 and Perspectives 1981*; Boulevard de l'Impératrice 66 (Bte 4), 1000 Brussels, Belgium. The report, the second of its kind to be issued by the ETUI, contains a systematic survey of collective bargaining in 1980 and indicates trends and prospects for 1981. The analysis covers the situation in the U.K., Italy, West Germany, Belgium, France, Ireland, Holland, Denmark, Luxembourg and Greece, as well as countries outside the European Community - Sweden, Norway, Iceland, Finland, Switzerland, Austria and Spain.

The results of the report clearly demonstrate, ETUI say, that in 1980 resistance from employers to collective bargaining increased. 'In many countries employers are exploiting the structural crisis with the accompanying mass unemployment and inflation in order to shift the burden of the crisis onto the workers and weaken the bargaining position of the trade unions', but 'in spite of these difficulties, trade unions have managed to defend workers' rights successfully and achieve breakthroughs in collective bargaining in a number of countries.'

Cooper, C.L. and Marshall, J., eds. (1980): *White Collar and Professional Stress*; John Wiley & Sons Ltd., Baffins Lane, Chichester, Sussex, England. This book explores the sources of stress in different white-collar jobs, in nursing, dentistry, engineering, technicians, social workers, etc. in trades union leaders, public servants, and legislators.

Thornley, J. (1981): *'Workers Co-operatives: Jobs and Dreams'*; Heinemann Educational Books, London. This book is based on research over a period of three years, 1977-80. It deals briefly with 19th century worker co-operatives, and in detail with developments since 1974, and also with the history of the Co-operative Productive Federation, and others. Co-operatives in France and Italy are also covered. Recurrent themes are: need to recognize the weak capital base of co-operatives; need to involve the state in support of co-operatives; and need to gain a coherence for a co-operative movement by relating to socialism.

Equal Opportunities Commission (1981): *Job-sharing, improving the quality and availability of part-time work*; Overseas House, Quay Street, Manchester M3 3HN, England. This paper examines the practical implications of job-sharing; it looks at the demand for part-time work, and associated problems, and how job-sharing can overcome them. The extent of job-sharing in the U.K. and the U.S. is reviewed. The final section summarizes the main findings of the report, and outlines the main points which need to be considered by employees, employers and trade unions.

European Foundation for the Improvement of Living and Working Conditions (1981): *Shiftwork in the European Community: the Services Sector*. Loughlinstown House, Shankill, Co. Dublin, Ireland. This study is a complement to the study on the spread of shiftwork in industry. It was carried out in two stages. First, a specialised institute from each of the member states drew up a report on the situation in their own country; second, a comparative study was carried out based on the collective results and consolidated by the European Foundation. Both the individual and consolidated reports were evaluated at a seminar held in Dublin in September 1980 by the social partners and government representatives, when a number of amendments were made to the consolidated report. The final version can be obtained from the Foundation at the above address.

Blake, Jenny (1981): *People and Technology*; Institute of Management Services, 1 Cecil Court, London Road, Enfield, Essex, England. The author, who is a job and organi-

zational design consultant, describes in this paper what her own approach to new technology would be: to 'design and structure jobs so that we maximize human aspirations as well as technological needs . . . by introducing new technology by consultation and collaboration at the earliest possible stage' and enable employees to learn the process skills and use them.

Gunzburg, Doron (1980): *Employee Participation in Australia: Progress Report*; Australian Government Publishing Service, Canberra. This publication can be obtained from: Department of Science and Technology, 339 Swanston Street, Melbourne, Victoria 3000. The report covers the 'Development of employee participation in Australia', 'Promotion of employee participation in Australia' and 'Program possibilities'. In the last section, 'Conclusions and summary of recommendations', the author states that "Australia is placing emphasis on forms of participation related to information sharing, job redesign and self-managing groups, and on consultative and joint decision-making groups. Little emphasis is being placed on worker directors". There is growing awareness that multilevel approaches are needed if effective implementation and diffusion are to occur . . . not only in direct and indirect participative form, but also an examination of the nature of work relationships, pay and quality control systems and matters related to job security and the work environment.

National Employee Participation Steering Committee, Australia: (1980): *Employee Participation: Ways and Means*; Australian Government Publishing Service, Canberra; ISBN 0 642 01669 0. The Committee sees the process of employee participation as being a gradual, evolutionary one - 'established procedures, roles, habits and attitudes do not change overnight . . . it is an ongoing process, and considerable work and commitment are needed from all concerned'. Their report is presented in three parts. First: laying the foundations for participation - better communication, reporting to employees, leadership styles and attitudes, and work group development. Second, steps to a participative approach; and third, specific forms of participation - changing existing practices, changing work arrangements, and introducing rep-

resentative participation. They conclude with a number of general principles which 'can be drawn together about the ways and means of introducing employee participation both in relation to the process involved, and the organizational requirements'.

Lansbury R.D. and Prideaux G.J. (1980): *Job Design*; Australian Government Publishing Service, Canberra. In their introduction to this booklet the authors specify that they use the term 'job design' to cover both the initial design of jobs and the redesign of existing jobs. Aspects they cover are: the historical background to job design; factors which influence job design; individual job design; job design for groups; steps in introducing job redesign; obstacles to job redesign; and developing new job designs - general approach, participative design workshops, job diagnostic survey, work system design and implementation and evaluation of job redesign.

Convergence, O.D. Canada is expanding its programs to encourage the formation and development of local support groups. The newsletter is designed to stimulate information exchange on a regular basis with the accent on news in the Canadian context, English and French editions. Inquiries to Editor, *Convergence*, O.D. Canada, P.O. Box 382, Brossard, Quebec J4Z 3N3.

New Work Schedules in Practice: Managing Time in a Changing Society: commissioned by Work in America Institute as a companion to its policy report, *New Work Schedules for a Changing Society*. Written by Prof. Stanley D. Nollen, the case book presents a series of studies based on original field research. The author tells how organizations have introduced new work schedules, managed them, and overcome some of the obstacles they faced.

New Work Schedules for Changing Society: the culmination of an 18-month policy study by the Work in America Institute. Its 50 recommendations to business, labour, and government policy-makers on planning and implementation of new work schedules are based on the experience of work organizations in the United States and abroad. Contact: Work in America Institute, 700 White Plains Road, Scarsdale, New York 10583.

NTL Institute 1982 Brochure: a wide range of courses and programs in the human relations area for both personal and professional growth. Inquiries to: NTL Institute, P.O. Box 9155, Rosslyn Station, Arlington, VA 22209.

Journal Extracts

Accounting, Organizations and Society; Pergamon Press, Headington Hill Hall, Oxford OX3, OBW, England; Maxwell House, Fairview Park, Elmsford, New York 10523, U.S.A. (1981 Summary) Vol. 5, No. 2, August 1981, has an article by R.J. Boland on 'Study in System Design: C. West Churchman and Chris Argyris'. He has chosen these two scientists because, he says, "While both are systems theorists, they anchor their individual frameworks at radically different levels of system analysis".

This number also contains a paper by Ian Colville on 'Reconstructing 'Behavioural Accounting''. In this he 'adopts a critical stance towards behavioural accounting research methodology' . . . and goes on to discuss some alternatives to the positivistic research methodology of the natural sciences as a way of developing social science and the implications these have for providing a coherent theoretical and methodological perspective for future 'behavioural accounting' research.

Part of Vol. 6, No. 3 of this journal is devoted to the memory of Raymond Bauer, who died in 1977. A foreword by Meinholz Dierkes expresses his deep appreciation of the man who 'had a keen sense for the nature of the business-society interface', and who 'recognized the need to make institutions more responsive to human needs and was . . . involved in developing two means to this end: social indicators for measuring the performance of society as a whole, and technology assessment to include the evaluation of social consequences as well as more conventional technical and economic criteria'. The papers which follow include: 'An Overview of the International Development in Macro-social Indicators' by Wolfgang Glatzer; 'Indicators of Social Change: Developments in the United States of America' by Robert Parke and James L. Peterson

(both giving extensive bibliographies); and 'The Political Significance of Corporate Social Reporting in the United States of America' by James E. Heard and William J. Bolce. There is also a list of Bauer's works.

Human Relations; Plenum Press, 227 West 17th Street, New York, N.Y. 10011, U.S.A.; 88-90 Middlesex Street, London E1 7EZ, England, [1981 summary], Vol. 34, No. 4, April 1981. This issue carries articles on the following topics: 'Scapegoating in Small Groups: An Organizational Approach' by Jeffrey Eagle and Peter M. Newton, which includes their findings from a videotape study of naturally occurring scapegoating incidents in a Tavistock Group Relations Training Conference; and a paper by James Gustafson, et al., on 'Cooperative and Clashing Interest in Small Groups'. This latter is the first of a two-part paper, and is entitled 'Theory'. Part II in the May issue, 1981, is entitled 'Group Narratives'.

Vol. 34, No. 5, May 1981, also contains articles on the following: 'A New Look at Job Satisfaction in the Small Firm' by James Curran and John Stanworth; 'An Assessment of the Deemed Appropriateness of Participative Decision-Making for High and Low Hierarchical Levels' by Arthur G. Jago; 'A Longitudinal Study of the Distribution of Control in Yugoslav Organizations' by Bogdan Kavcic and Arnold S. Tennenbaum, a study which explores 'actual' and 'ideal' distribution of control in Yugoslav industrial organizations from 1969 to 1973. Yugoslavia has a unique legal system whereby all the employees of each enterprise have ultimate authority over basic policy, personnel and technical issues of the firm.

Vol. 34, No. 6, June 1981 contains the following articles relevant to quality of working life: 'Overall Job Satisfaction: Is it a Linear Function of Facet Satisfaction?' by T.M. Ferrat; 'Effects of an Organizational Control System on Managerial Satisfaction and Performance' by J.C. Anderson and C.A. O'Reilly; and 'The Moderating Effect of Work Context Satisfaction on the Curvilinear Relationship Between Job Scope and Affective Response' by J.E. Champoux, examines the interaction of job scope and satisfaction

with contextual features of the job in determining affective response.

Vol. 34, No. 8, August 1981. In this issue five Dutchmen from the Free University of Amsterdam have contributed an article on 'Content, Process, and Effects of Participative Decision Making on the Shop Floor; Three Cases in the Netherlands'. They question the usefulness of a contingency model in research on the effects of participation.

'Productivity News'; Productivity House, Lodi Road, New Delhi-11003, India. Vol. XIX, No. 6, August 1981, of this journal has an article by George Kanawaty and Einar Thorsrud on 'Field Experiences with New Forms of Work Organization'. It is the result of an ILO-sponsored project, financed by Norway, which began in 1977 to carry out field experiments in India and Tanzania. From the experiments in both countries, the most important conclusion drawn was that 'new forms of work organization are as applicable in developing countries as they are in more advanced countries'. Even 'the level of education of the workers did not appear to be a determining factor in the success or failure of such experiments . . . good results were obtained by almost illiterate shop-floor workers as well as by highly educated engineers . . . the only difference between these groups was the magnitude of the problem they had to tackle . . . In all the successful cases, job training rather than reliance on an acquired educational qualification was a key element of project implementation, and a strong motivating factor when it was used to upgrade jobs'.

'Economic and Industrial Democracy'; Sage Publications, 28 Banner Street, London EC1Y 8QE, England [1981 summary]. The May and August numbers of this quarterly journal (Vol. 2, Nos. 2 and 3, 1981) are special issues on 'The Political Economy of Education'. The May issue covers such subjects as: 'Exploiting Linkages Between Dewey's Educational Philosophy and Industrial Reorganization' (Arthur G. Wirth); 'Education as a Site of Contradictions in the Reproduction of the Capital-Labour Relationship: Second Thoughts on the "Correspondence Principle"' (S. Bowles and H. Gintis); 'Education, Industrial Democracy and the State' (M.

Carnoy); and 'Common Discourse? The Language of Industrial Democracy' (T. Schuller).

The August number contains four articles on the subject: 'Curricular Form and the Logic of Technical Control' (M.W. Apple); 'Perspectives of Vocational Education in West Germany and other Capitalist Countries' (W. Kampert); 'Education, Work and Employment in France' (J. Hallak); and 'Education for Industrial Democracy: An Evaluation of the Experimental Trade Union Studies Project' (in the U.K.) - (R. Turner and R. Count).

The May issue focussed 'on major conceptual and theoretical issues that arise in understanding the connections between education and production'. In the August issue, emphasis is placed on how education 'serves to reproduce major aspects of our societies, with special emphasis on the mode and relations of production', and tends to focus 'primarily on the relation between educational and workplace practice'.

Vol. 2, No. 4, November 1981, contains four papers: 'Worker Control in Portugal' (J.L. Hammond); 'Decollectivization and Recollectivization in the Workplace: The Impact of Technology on Informal Work Groups and Work Culture' (G.J. Grzyb); 'Co-operative Movement Confronts Centralisation: Israeli Kibbutz Regional Organisations' (P. Rayman); and 'Worker Participation as Action Learning' (R.W. Revans).

'Transatlantic Perspectives'; German Marshall Fund of the United States, 11 Dupont Circle N.W., Washington, D.C. 20036, U.S.A. Number Five, July 1981, continues its coverage of how to adjust to changing patterns of international trade and competition and deal with the problem of declining industries in an interdependent world economy in an article entitled 'An Industrial Policy for the United States?' by Howard D. Samuel and Brian Turner, President of the Industrial Union Department and his executive assistant. Their conclusions are that if 'the United States is to overcome the problems of high inflation and unemployment, low productivity and economic growth, and waning international competitiveness', there is need for the development of industrial policy - explicit economic

policies and the development of consensus-building mechanisms. This issue also includes articles on 'Apprenticeship: A Solution to Youth Unemployment?' by R.W. Glover, in which he puts forward the German apprenticeship program as a model for youth training and employment programs in the U.S.; and 'Europe's Response to Aging: A Longer Worklife?' by P. Fisher and S.E. Rix, which is based on G.M.F.-sponsored study of retirement policies in five European countries: France, Britain, Germany, Denmark and Sweden.

World of Work Report, Work in America Institute Inc., 700 White Plains Road, Scarsdale, New York 10583, U.S.A. (1981 Selection). Vol. 6, No. 8, August 1981 reports on the findings of a survey conducted by an insurance company among its older employees. The result of this survey is that retired employees can work almost half-time and still retain their pensions. They are offered jobs normally filled by temporary workers from employment agencies. The company introduced this scheme when they found that eighty-five per cent of workers approaching retirement wished to continue working in some capacity, not only to augment their pensions but because they had nothing to replace their work life and the companionship and interest it brought.

An article on career development programs, by Barbara S. Cohen, cites those of five of the U.S.A.'s largest corporations. One such corporation's program 'contains thirteen components, including self-development, computerised job matching, rational development programs, formation systems, and research and development, among others. The first and primary component is employee development, which encompasses four stages: self-assessment; career exploration; development of a career plan; and career discussion', when 'employee and supervisor talk about the findings of the first three parts of the program'.

Vol. 6, No. 9, September 1981 concentrates on 'Quality Circles' in both the private and public sectors. One of the pioneers of the Quality Circle movement was Honeywell, a multi-national organization with a work force of 97,000 in the United States, where the movement has achieved great success.

Vol. 6, No. 11, November 1981, gives coverage of a new Work in America Institute report on 'New Work Schedules for a Changing Society', which is available from the Institute.

This issue also has an article on 'Burnout', by Barbara S. Cohen. 'Burnout', she says, is "a fairly new term for a malaise affecting the productivity, quality of life, and happiness of American workers, especially at professional and managerial levels, causing idealistic, enthusiastic achievers to lose interest and to become exhausted, frustrated, and apathetic". The author says that "corporations are recognizing the toll that burnout plays in the loss of productivity, disillusionment, and unhappiness among employees, as well as in physical illness". Apart from sending such employees to be treated by psychologists, organizations are now providing management training and awareness programs, stress prevention and treatment workshops, and personal counselling services.

Contributors

Our thanks to the following people who have contributed to the news network in this issue.

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and *Le manager et la gestion*. His work in the field has made significant contribution to the development and diffusion of QWL in Canada.

At the time of his death, Maurice was on sabbatical leave working on the impact of technology on QWL.

Maurice leaves his wife and three small children. He will be greatly missed by all those who knew him - family, friends and colleagues from across Canada, and the whole field of QWL.



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Promotion
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The New International
Dimension of Working Life

Volume 3

Issue 1

February 1983

FOCUS

Quality of working life is an ongoing learning process for individuals, groups, organizations and communities. Assumptions about the nature of learning can significantly affect the development of QWL. In this edition of FOCUS Merrelyn Emery examines some of these assumptions in the light of her experience with field projects in Australia and North America. The examination suggests that much of what goes under the banner of learning or training is at cross purposes with enhancing QWL. She argues that a fundamental shift in our view of people and their capacity to learn

continued on page 3

Learning and the quality of working life

by Merrelyn Emery



Once people feel themselves to be genuine and responsible partners in an important adventure, they will be quick to identify learning and/or training needs as they emerge.

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Learning and the quality of working life*

Introduction

The democratic industrial societies are all now showing a deep interest in quality of working life (QWL). Although each of these countries approaches QWL from a different historical starting point, there appears to be consensus about what it is that a job should provide: fair pay, reasonable hours, due process, a safe workplace, interesting work and opportunities to exercise power and competence.

QWL changes are cosmetic unless they change the job from a 'stick and carrot' affair to something that is intrinsically interesting and rewarding. No job is going to remain interesting unless it allows for continual learning, a constant buildup of skill mastery and understanding. No one is going to find any challenge, any intrinsic interest, in a job where he/she cannot find out whether they are making progress; whether their new way of doing things is an improvement or has created more problems. If the job is organized so that people can get proper feedback, know how they are doing, and can stretch themselves to the degree that suits them, then we have a learning environment. In such an environment, individuals can learn how best they personally can learn, regardless of where this learning begins. Throughout all the ways in which QWL has been defined there is a hard core of meaning around the idea that because people should not be used or considered as replaceable parts, or cogs in a machine, such learning environments are a pre-requisite to acknowledging human dignity and responsibility.

The idea that a high quality life at work involves a lot of learning is therefore central to QWL. This is very far from the traditional notions of training a worker to do what a machine is expressly built to do - a limited and fixed repertoire of performances - then standing over him/her to make sure he/she does it the way he/she was taught. It is also a long way from the assumption of our traditional education that only a few are constitutionally capable of conceptual, rational thinking and analysis.

These traditional notions about learning, however, are still prevalent in many organizations. They are often a major barrier in the development of QWL projects.

If we re-examine our assumptions about learning in light of the experience with QWL in recent years, I believe we will improve both our capacity to learn and the quality of our working lives. In particular, I will discuss learning in the context of getting a project started and the nature of self-managing groups.

Learning to get started

For over thirty years certain lessons about the nature of human learning have been learned, ignored, or forgotten and rediscovered. Nowhere is this more evident than in starting up a QWL project. While the initial stages are obviously critical for setting the tone and expectations of the future of the exercise, it is in this phase that we see the greatest conflict in assumptions about how people learn. The traditional set of assumptions often carries the day, even in cases where the alternatives have been debated. By allowing our fears and doubts about ordinary human abilities to guide us here, we are in fact putting the program at risk.

*This article is condensed from the paper *Using Commonsense in QWL* by Merrellyn Emery, published by and available from the Ontario QWL Centre.

It is only common sense that the people who are doing a particular job know more about that job than anybody else will; they will know about its disadvantages and will have more ideas about how it can be improved. It is also common sense that a union will know most about union concerns in a particular industry, or about union issues arising from QWL projects. Yet how often do we find one or both of the following courses of action occurring immediately after a decision has been made to get started?

1. Consultants will be called in to do a survey of the plant or organization. Using questionnaires, interviews, etc., they will extract information from a sample of personnel about a pre-determined set of issues and conditions. After duly counting and analysing, they will feed the results back to the sponsoring body, joint union-management steering committee, or personnel more broadly. They will probably include a series of recommendations about future action. These may go as far as a new organizational design for group working, vertical and horizontal coordination, perhaps corporate planning, etc. In other words, a blueprint or prescription for the future.
2. Consultants will be called on to design and recommend a training course to prepare the ground, i.e. the people, for the introduction of the QWL program proper. They may recommend subcontractors for various parts of the program or they may conduct it themselves. But, almost inevitably, it will contain segments to promote 'interpersonal learning,' 'human relations,' or 'group dynamics.' It may also include sessions which outline various theories of social change or perhaps work through a series of classical case studies in QWL, or, various components of a training program may be organized around the introduction of the already prepared design. Such integrated training may end with some modification of the pre-packaged design after those who are going to have to work in it have had a chance to comment.

Apart from the fact that most of this training is unnecessary, let us consider its implications for the rest of the project in terms of the implicit

FOCUS *continued from page 1*

is necessary if we are to generate the energy and motivation to transform our workplaces and society at large.

This issue includes two new contributions that will be appearing at regular intervals in subsequent journals. From Western Europe comes a contribution by David Jenkins, and from the USA, an article by Michael Brower. These two pieces represent a further development in QWL FOCUS' reporting on the international QWL scene. It is hoped that this broadening of the scope of the journal will assist in increasing the awareness and diffusion of QWL developments across international boundaries.

Michael Brower's column on QWL in the USA focusses on the growth of union support for the ideas and con-

messages which this training conveys. The first message is that QWL is something for which we must be carefully prepared. Second, there is a message that QWL improvement and re-design must be done by experts in the field. All this serves to reinforce the notion that people cannot make sense of their own experiences. These messages, springing from the best of intentions, will, in the long or short term, work against the healthy evolution of any attempt to improve QWL.

Reactions to such messages appear to be basically twofold. As you would expect, there are some who, without having developed a fully fledged 'hatred of learning', are still impressed by and see the need for expert guidance. The mode is dependent and presents a problem in the long term. When this attitude is confirmed and reinforced in a QWL project, a barrier is immediately set against rapid and adaptive self-management. Consultants, as advisors and facilitators, will be constantly required to sort out hassles and negotiate further evolutionary steps. Eventually such a state of mind may disappear but the process has been prolonged. The cost of this approach, in both human and other currencies, must be queried.

The second basic reaction to such training is also common, but its effects are frequently more dramatic, open and short term. It sometimes

cepts that QWL brings to the American workplace. In recent times, some landmark decisions have been made by both management and unions regarding their joint futures. The reasons for these steps may be uniquely American solutions to American problems. However, their impact on the US scene cannot be discounted.

From Western Europe, David Jenkins brings a report that captures current trends within the industrial scene reflecting the present economic squeeze and its effect on the growth of QWL. Although times are tough, it is recognized that QWL as an organizational design principle forms a cornerstone for both organizational and societal developments.

can disrupt or close down the program. If it does not surface during the training course, or if it does surface but is ignored it will certainly re-emerge at an opportune point after implementation has begun. This type of reaction is more prevalent in some industries than in others as well as in some cultures.

At the lowest level of this type of reaction there is a skepticism, a cynicism about the use of the training and the ends it serves. There may be rumblings about, 'Well, we could have told them that, for a lot less money', and further, 'Why don't you just let us get on with it.' Further again, 'If they're so smart, why don't they go and do it themselves?' These are reactions from people who have retained a sense of their dignity and worth and while they auger well for the success of QWL in the long term, it is unfortunate that this vitality need be put to adversarial ends. But common to both the more dependent and independent reactions is a deeper observation - 'not much has really changed.' Expectations about QWL generally contain a hope or fear that something fairly fundamental will change. When confronted with the traditional academic, or at best a consultative mode of training, there is a sense of disappointment or relief, but not joy. Something of the sense of challenge has already dissipated.

The safest and wisest approach to

starting up a project is to assume that all those involved have the motivation, the skills and the experience to successfully embark upon it. This assumption translated into a practical learning experience will be rewarded by an almost immediate increase in energy, common sense and goodwill. Once people are convinced that they are perceived as genuine and responsible partners in an important adventure, they will be quick to identify learning and/or training needs as they emerge.

Self-managing groups

The essence of QWL, in organizational terms, can be boiled down to the structure illustrated in figure 1. This shows a group of people who, having accepted responsibility for achieving a common goal, "G", are in the process of learning how to use their own resources and abilities.

If we compare this structure with figure 2 describing the traditional bureaucratic form of work organization, we begin to see the implications for group working as a process of learning. When responsibility is given to a group of workers to achieve an agreed-upon goal, they must learn to share and allocate all the requirements for control and co-

ordination of the separate tasks, as well as learning more of the particular skills involved in each of the separate tasks. There are special cases where multi-skilling, or learning each other's job, is either impossible or just not a feasible proposition at the moment. A self-managing group can be formed, however, if workers take responsibility for the effective coordination of their activities as a group.

Workers must also learn to monitor and control the various contributions of their own membership and they must learn to organize the mutual support necessary to cope with fluctuations in individual, task and work flow requirements. As they are now all responsible for the achievement of the G they must also learn how to plan for and negotiate reasonable degrees of variety and freedom for themselves as individuals within any given set of circumstances, and learn when to re-negotiate this as those circumstances change. Part of this is simply learning how to tolerate their individual differences as people. Since the majority of self-managing groups can never be fully autonomous, embedded as they usually are within a larger organization within a larger society, the group must learn to manage its relation with its environment: e.g.

accounting, finance, warehouse, etc.

Given the above characteristics, one can roughly divide the skills required of self-managing groups into six clusters: direct job skills; communication and decision-making skills; managerial skills; perceptual skills in extracting information from the groups' various environments; work design skills; and skills to set and maintain a productive human atmosphere. For the purpose of this article, I will discuss only the last five.

Communication and decision-making skills

'If only we learn to communicate better.' It is in this area that the most frequent misunderstandings concerning learning occur and where most unnecessary training is carried out. This training and/or game playing sometimes goes by such names as Sensitivity Training, Team Building or Communication Skills Training. The mythology about its effectiveness and necessity for those who are in the process of improving their QWL arises more from faulty assumptions about how people learn than it does from any hard evidence. Of the many projects with which I have been associated, the real need to engage in such training was negligible. In fact the most common observation is that once the group sys-

Figure 1

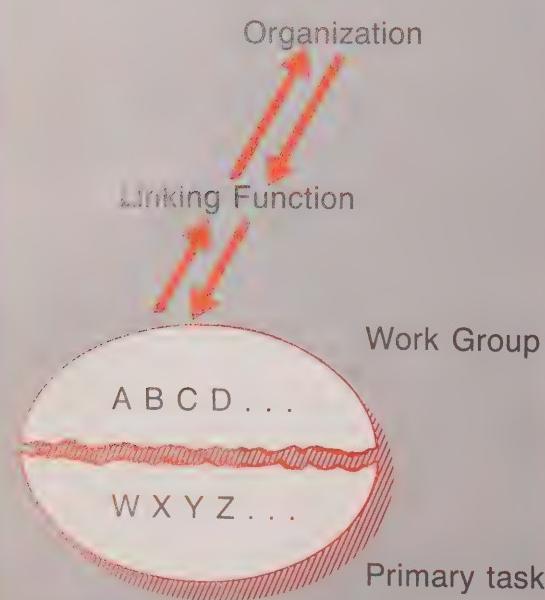
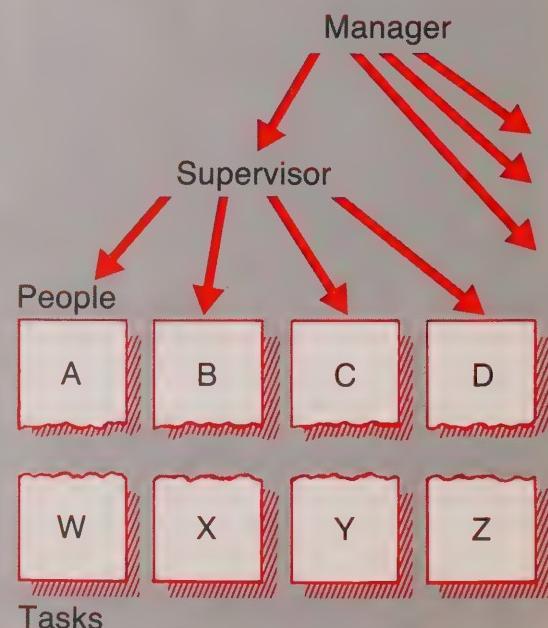


Figure 2



tem is underway people simply begin to speak to and more generally to relate to each other in ways which were often inconceivable in the old bureaucratic structure. As people, we prefer to maximize positive feelings and minimize the negative, but when one person is pitted against, above or below another, the negative must predominate, with all the damage that this does to the quality of communication. We are built to be excellent communicators, but we need the appropriate conditions in order to show how good we are. Participating in a common task with shared purposes gets close to the ideal conditions. Over time, as we get used to these conditions and confidence grows, not only do communications radically improve but people also come to experience their interpersonal relations within the group as joyful. (There is, from anthropologists, growing evidence that we are adapted to live and work in small face-to-face groups which may help to explain why this mode of work is doing 'what comes naturally').

Not only is much of this training often unnecessary but there are also other basic problems in the whole approach. First, some of the games on the market must be played with fierce competition in order to become aware of the dynamics involved – not exactly in line with the values and aims of QWL. Second, those methods which do increase sensitivity to others are often found to be useless once the people return to the actual workplace, where nothing else has changed. Learning from such game playing is lost unless the structure of the relationships on the job is changed to encourage its transfer. Third, as above, we simply do not need to be taught how to be nice to each other. Fourth, some of this training implies that nothing really ever can be changed and that we must simply learn better ways of coping with the mess. Living with stress appears to be a fashionable theme at the moment. Promoting such an attitude is particularly dangerous in the midst of a QWL improvement project. Making QWL work well can be sufficiently difficult even with high levels of hope and motivation to succeed. However, some games designed to teach fairly straight material, for example, how to make up a budget, can be useful. If you use a game or simulation, choose it care-



On-the-job learning and exchanges of opinion between a group of workers at a Volvo auto-assembly plant in Sweden.

fully, and make sure in advance that the learning can be applied back in the workplace.

Managerial skills

In many senses this is a central part of communication and decision-making skills but I am using the term to mean planning and control skills or the use of sophisticated management information systems. When a self-managing group is formed it will usually need not only more explicitly agreed procedures and guidelines than were previously necessary, it may also simply need more information than its individual members collectively have in order to function effectively. This is because the simple and effective self-regulatory properties of face-to-face work groups are inadequate to the task of co-ordination and control when the group is spread over shifts or geographically dispersed. Such conditions are characteristic of continuous process, capital-intensive industries. They will be even more prevalent given the current investment in new technologies in all sectors of the economy. Since the nature of the information required is about agreed objectives and performances (not just output levels) self-managing, rather than semi-autonomous, has become a more appropriate term.

In order to learn how effectively to use an integrated information sys-

tem, the group must accept responsibility for the achievement of group objectives. Once the responsibility is accepted it is then a matter of ensuring that workers have the ability to understand what is conveyed by the system and an ability to learn from what is understood. This will undoubtedly require a mixture of on and off the job training. Insofar as the information system is monitoring a complex operating system, we are referring not to training but to polytechnical education. The start-up of a mining and mill operation in 1978, for example, required 500 hours of formal classroom education for operators.

Effective use of this knowledge and information cannot, however, be taken for granted, nor can one place responsibility for combining these too much with experts outside the group. It becomes necessary for the group to have the means and the skill to monitor what it does, with at least the proficiency that in past decades was shown by quality control engineers and production planners. Fortunately the growth in computer-assisted analysers has made this possible.

Perceptual skills

The answer to upgrading the performance of these skills is essentially the same as that given under communication and decision-making and for

the same reasons. They will soon become part of the day-to-day way of working. There is, however, one exception. There will certainly be times when a self-managing group (or for that matter, the whole organization) will feel the need to set aside some time to assess the situation it is in and to plan for the future. For its planning to be maximally effective, it must take into account the nature of the world in which the group is working and planning, the direction in which it appears to be heading (not imply from bad to worse), its trends, some of which are sure to touch upon the purposes of the group, and the opportunities these may open up for the group.

This is not difficult: it entails drawing pictures from the many observations that we all make about all but significant changes taking place around us. But our culture has been notably deficient in helping us learn how to make sense of all this information. Thus an organization or group may need outside help in this stage of its planning, at least for the time. It is critical, however, that planning sessions not be seen as training sessions, but as a participative process through which people in themselves extract and create more of the perceptual information they automatically and often passively collect.

Design skills

In order to continually design, evaluate and redesign their own work, self-managing groups need a briefing and opportunity to work with some simple practical tools. One set of the structural building blocks of an organization, is illustrated in figures 1 and 2. Other important parts of a more detailed description of the whole process, can be found in *Participative Design: for Work and Community Life* (Emery and M. Emery, 1974).

Using these tools and their own first hand experience of their jobs, the groups proceed to:

- analyse how the whole job is now done at present
- assess how far this falls short of meeting their human requirements
- re-design the way the work is done to improve its quality, if they decide this is necessary, and
- work out how the new design could be implemented through a continuous participative learning

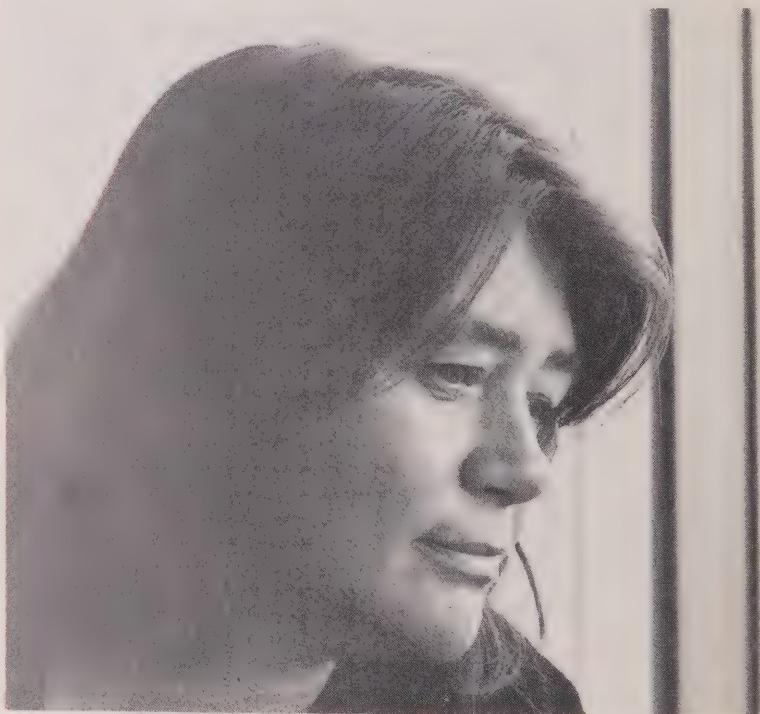
In the process of doing this they are learning how to work as a self-managing group. During the process the groups need neither leaders nor facilitators in the traditional sense. They may, however, need experienced people to act as resources when questions and problems arise, and these should be on hand.

Skills for setting and maintaining a productive human atmosphere

One problem which can be encountered in QWL work casts a less rosy glow over our abilities to communicate and work in groups. It is known as the 'hatred of learning.' Some people have been so damaged by their experiences at school, at home or in bureaucratized work-places that when invited to participate in creating a genuine learning environment they feel fear which expresses itself in various ways. Having lost confidence in themselves as full human beings, in the validity of their own

experiences, unable to take risks, unable to experience joy through working in a cohesive group, they will try to restore the old structure in which they can be dependent. Some will be more forceful. Convinced of their belief in the virtues and necessity of hierarchy, they may attempt to subtly sabotage the entire QWL project. Those who can no longer take initiatives, only orders, can often be accommodated within a re-design. Those of a more aggressive disposition which may become obvious only much later must be dealt with by the organization.

The fear or hatred of learning shows that our special abilities to communicate and know as whole, autonomous persons are vulnerable, and become damaged or destroyed by sustained lack of use in structures which discourage them. It does however confirm the converse: that



About the author

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places and communities. She produced the first do-it-yourself manual for participative design workshops in 1974 and for Searching in 1976.

As part of the Australian network for democratization, QWL, and quality of life at all levels, she has worked across the spectrum of work organizations; blue and white collar; public and private; and with all levels of employees from shopfloor to managerial and professional.

group working by encouraging the use of these abilities and our first-hand experience generates energy and confidence for more creative learning. We learn to participate by participating and by participating, generate a greater desire to learn. It is human nature, given the appropriate structures, to get along with each other, working as a team, making sensible decisions, turning work into play, gaining a better sense of social justice, and becoming more task-oriented and purposeful.

Evaluation

It is always necessary to include a note about evaluation when discussing QWL because it has been so mystified and has become so mystical as to be almost useless. In reality, it is simply not necessary for teams of researchers to crawl all over QWL sites attempting to measure how much people have learned or how much has been changed. If the change to self-management has in any way been accomplished, the changes will be obvious, sometimes dramatically so. Changes in interpersonal relations have been mentioned. Equally obvious, are the changes in such areas as 'housekeeping.' When people accept responsibility for their workplace, it takes on the characteristics of a home. As people care for their homes, so will they care for their workplace. It will become cleaner, tidier and better arranged to facilitate the flow of work. The flows are quite direct; an increase in occupational health and a decrease in accidents.

When people feel they are merely travelling from one home to another, absenteeism will be down. All of these are reliable guides to the extent of change and the fact that people are learning to accept and share their responsibilities.

If it is felt necessary to delve deeper, you may ask groups to rate themselves over time on a set of criteria for a challenging job and an effective organization. But there is a problem here. As the quality of the day-to-day experience increases, so do people see more ways in which to further improve it. It is therefore difficult to ever rate oneself or one's organization at the top end of the scale.

The future of learning and QWL

It is obvious at this time of writing that economically we are going through a very difficult phase. The storm clouds and gloom continue to gather. Indeed as we consider the four previous waves of boom and bust, we note that each depression has been both deeper and longer than the preceding one. Some corporations will go under because they find themselves in the wrong market, many more will go under because their costs of production are above average for their market.

To climb out of each previous depression, three things have been needed:

- a new technology for the creation of new markets or for cheaper production to service existing markets,
- a new and cost reducing energy source,
- a new form of organization at the work face.

Such a technology is available in the micro-processor. But if, in order to pull out of this depression, we need to achieve rates of economic growth as in the fifties and sixties, then we are lacking an energy source which will double in its availability every seven or eight years. This does not mean that we are doomed to live in darkness, only that we cannot crank up the great industrial machine. Should this prove to be a basically accurate picture of what is to come, it puts more weight on the third factor in the equation, the new form of work organization, the core of the concept of QWL. As the learning from involvement in a QWL program is transferred to other areas of life, generating energy and motivation to develop and re-develop communities and society at large, so we will see the need to invest more of our scarce resources in QWL and QWL ventures. The product of work is people: the higher the quality of life at work, the higher the quality of the life.

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FORUM

Report on QWL in the US

by Michael J. Brower, Executive Director, Northeast Labor Management Center

Growth in union support

National unions in the United States have felt increasingly under attack in recent years. This started with the massive effort organized by certain segments of the business community to defeat amendments to the National Labor Relations Act in 1978. In the past year it has intensified.

The defeat and decertification of the Air Traffic Controllers union has contributed to this, as have the rising pressure caused by unemployment at the highest levels in 40 years, business failures, plant closings and pressures on one union after another to accept low, zero, or negative pay increases in new contracts. All this has led to increased skepticism and in some cases militancy on the part of many union leaders.

Nonetheless, the growth of national union support for joint labor-management quality of working life (QWL), and employee involvement (EI) programs and processes over these same years has been impressive. A few years ago most national unions were neutral or negative about such efforts, while scattered around the country one or more local unions in virtually every international were experimenting without sanction or support from headquarters. Today that has changed. Several of the major international unions are today putting QWL, under a variety of titles, on their list of objectives, and in some cases in a

high priority position. In summarizing some of these examples in this report I want to start with the UAW, in part because they have been involved earlier and more often than other unions, and in part because their recent negotiations with Ford have been widely misunderstood.

Under the leadership of Irving Bluestone, the UAW and General Motors signed in 1973 a letter of agreement on starting QWL. Similar letters became dead letters at Ford and Chrysler, but at GM there grew vast spread of QWL programs.

In 1978 negotiations, Ford and the UAW signed a letter of agreement to establish a National Joint Committee on Employee Involvement. The purposes were 'to make work a more satisfying and stimulating experience' and 'to enhance employee creativity, contribute to improvements in the working environment, support goals of achieving the best quality products, heighten efficiency and reduce unwarranted absenteeism.' In mid-1980 this National Committee was joined and became co-chaired by Pete Pestillo, President of Industrial Relations, and Donald Ephlin, Director of the Ford Department. The pace of joint providing assistance and plant management, publishing joint EI programs. By the end of 1981, activities under the joint committee in plants and installations involved workers in solving work problems. More than 60 Ford executives attended QWL and the 80's conference of 1981.

The auto industry in general and Ford in particular were suffering setbacks. Hourly employment had dropped 46% in two years. Ford had lost \$1.5 billion in 1980 and \$1 billion in 1981. In this situation the UAW agreed in January 1982 to open negotiations many months before the contract expired. A month later, with similar early negotiations at GM stalled, Ford and the UAW agreed to an historic 30 month contract. This contract has been widely discussed in the press, but is too often, in my view, seen as an example of 'concessionary bargaining', by the union. It is certainly true that the contract included a delay in cost of living increases, giving up a bonus Sunday holiday pay and a

number of other union concessions to help cut Ford's costs. But that is only a small part of the whole story. The company committed itself to future profit sharing and to major steps toward increased job security. For 24 months Ford will close no plants as a result of outsourcing – the purchase of products from non-Ford sources – a major agenda item for the union. To quote former UAW VP Irving Bluestone in a Harvard seminar, as reported in our March 1982 *Newsletter*, 'Plant closings will still be possible because of a decline in volume, but not because of outsourcing, which has been a very serious problem related to job security.' And Bluestone went on:

'The company also agreed that it has a moral obligation to seek ways and means of not laying people off. It is evident that if there is a continuation of this decline in auto industry sales, layoffs will continue. Nevertheless, the attitude toward the layoff, the attitude toward retention of the worker, the notion that retaining the worker is equally important as maintaining the machine, is now in writing with a pledge by Ford Motor Co. to see to it that they do everything they possibly can to eliminate and avoid layoff situations.'

Two other parts of the contract include agreement that layoffs and economic sacrifices will hit salaried as well as hourly, and that UAW Ford Department Director Donald Ephlin will address the Ford Board of Directors twice a year.

The new contract contains at least four other provisions that relate directly to EI and QWL. As explained by Ernest J. Savoie, Ford Director of Labor Relations Planning and Employment Office in an article in the first issue of *The Work Life Review*, published by the Michigan Quality of Work Life Council, they are:

1. A confirmation and strengthening of the EI process;
2. The creation of Mutual Growth Forums, in which at least quarterly top managers and union leaders, both nationally and locally, will meet to assess their relationship, share information, and engage in preventive problem solving;
3. The creation of a jointly administered Employee Development and Training Program to provide train-

ing, retraining, and development opportunities for employees and laid-off employees, and

4. Commitments to pilot projects to enhance the utilization of human resources, including a pledge to undertake a two-plant project that would give lifetime job security protection to 80% of the workforce at those plants.

Not only are many of the outcomes of the negotiation new directions in EI and QWL, so too was the Ford-UAW experience with EI crucial in making possible the new style bargaining, according to both Ephlin and Savoie, who label it 'problem solving bargaining.' Ephlin, in a foreword to Savoie's article: 'Although the UAW went to the bargaining table to do everything possible to make the jobs of UAW-Ford members more secure, this was not negotiations in the normal sense of the word. We were engaged in precisely the kinds of joint problem solving that has characterized our most successful EI efforts.' Savoie wrote:

'Many of the people who negotiated the new Agreement on both sides—came to the bargaining table with extensive first-hand experience in the EI process. They had already ex-

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Michael Brower has an extensive background in both city, county and federal government positions, in addition to experience in private industry. His academic background includes teaching positions at several universities in the area of advanced management studies, most recently at M.I.T. and the Sloan School of Management.

Dr. Brower is shown here facilitating a break-out group at the U.S. Secretary of Labor's Symposium on Cooperative Labor-Management Programs.

tended their relationships, including increased information sharing, joint problem solving, and expanded communications. Many of the negotiators also were veterans of broad, joint efforts to improve product quality. Thus when the negotiators came to the 1982 table, they came in a problem resolution mode . . . There was full, up-front problem exploration without the posturing that is sometimes a part of more traditional bargaining.'

Said Bluestone of the bargaining overall:

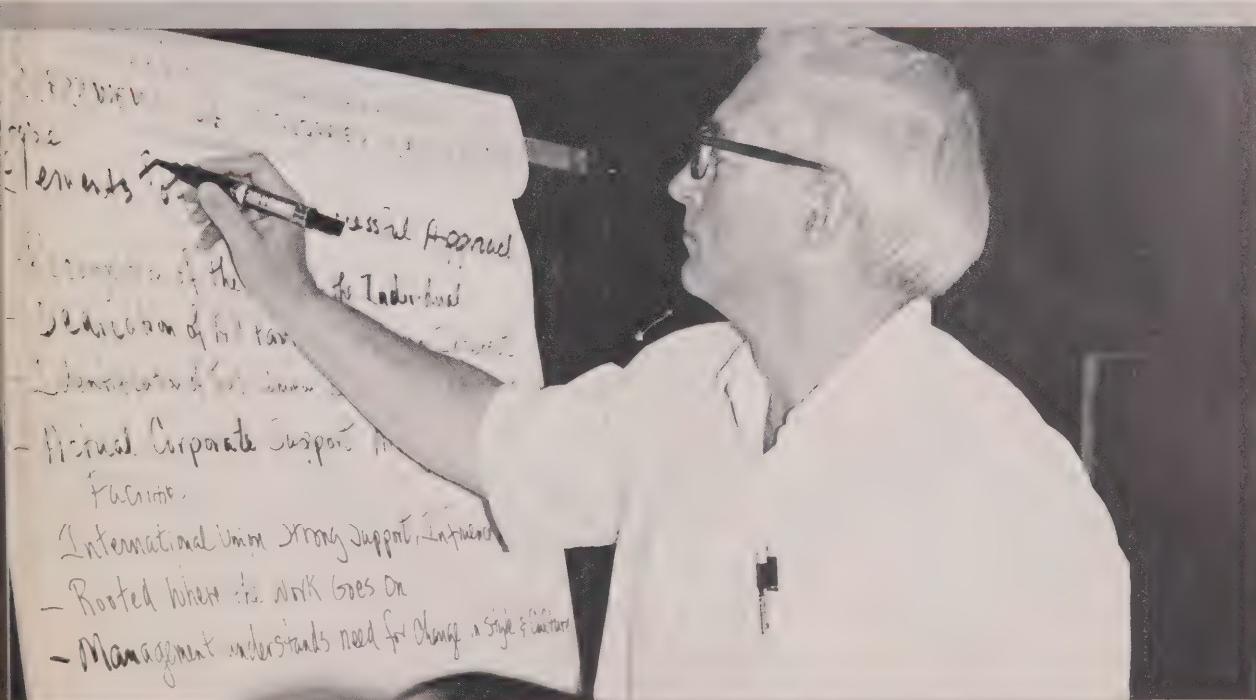
'There is historic significance in these breakthroughs in the relationship between the union and the company on matters which historically and traditionally have been unadulterated management prerogatives. Over time there is no real issue that I can dream of except, I guess, the right to be chartered as a corporation, which at some point will not be subject to this kind of negotiating process.'

In the last two years the UAW has been joined by three other major international unions in its steady move towards involving employees and promoting QWL processes. As readers of *QWL FOCUS* know (Vol. I, Issue 3, August 1981, pp. 25-26) in 1980 the Communications Workers

of America (CWA) reached a joint agreement with AT&T on developing a QWL process, and they agreed in April, 1981 on a statement of principles to guide the process. The statement spells out goals of employing people in 'a profitable and efficient enterprise,' and creating 'working conditions which are fulfilling by providing opportunities for employees and groups at (all) levels to influence their working environment.' There is the frequently found statement that QWL is a supplement to the collective bargaining process and the grievance procedure. And then there is the guarantee that: 'Innovations which result from the QWL process will not result in the layoff of any regular employee or negatively affect the pay or seniority status of any Union eligible employee, whether he or she is a participant in the process or not.' A number of local Bell systems around the country are now moving forward to develop their own QWL Committees and processes. (See Michigan Quality of Work Life Council, *The Work Life Review*, Vol I, Issue 1). At the same time, Western Electric, the giant AT&T Manufacturing subsidiary, and the CWA have their own national joint Committee and are working out an agreement.

Less well publicized is the fact that in their last national negotiations the International Brotherhood of Electrical Workers (IBEW) also reached an agreement with AT&T to establish a six member 'National Committee to Improve Quality of Life at Work.' The Committee is charged with 'developing and recommending principles and objectives relative to working conditions and service quality improvement which will guide experiments or projects such as quality circles, problem solving teams, and the like, in various work situations. These should be designed to encourage teamwork, to make work more satisfying, and to improve the work operations.'

The United Steelworkers of America had tried a few years back establishing joint Productivity Committees in the steel industry, but now they acknowledge that these were largely ineffective. Appendix W of the August 1, 1980 steel union - industry basic contract launched them fully into QWL. The union and each signing company agrees to select pilot plants and set up in each of them a joint Participation Committee. This Committee will in turn coordinate the creation of Participation Teams in departments and similar floor level units.



These Participation Teams 'will be made up of a management co-chairman, an employees' co-chairman, and employee and supervision members of the department or unit.' Members will be compensated at average straight hourly time. Meetings shall be called during normal working hours 'as often as the employee and supervision members agree.' 'A Participation Team shall be free to discuss, consider and decide upon proposed means to improve department or unit performance, employee morale and dignity, and conditions at the work site.' Overall, the agreement also sets up a Participation Team Review Commission composed of a headquarters International Union Representative and a company representative to facilitate the establishment of these Participation Committees and Teams.

... (all?) of the big steel companies now have these joint programs say. Sam Camens, Assistant to the President of the Steelworkers, at the June 1982 Airlie Conference on Labor-Management Cooperation with great eloquence stressed the importance of shop floor representation for the workers, for the union, for the democratization of management.

The American Federation of County & Municipal Employees (AFSCME) has long had joint programs in several cities (Springfield, New York City, Boston in Massachusetts) and Federal (DC) and Federal (D.C.) and Federal (N.Y.) in developing joint programs. Today the efforts of the mid-1970's joint programs have finally developed into a major effort by the Koch administration and AFSCME District Council 37 under Executive Director Victor Gotbaum. They have established a joint Productivity Council which is now launching new joint programs in many city agencies.

Gotbaum speaks and writes frequently and fervently about the importance of both QWL and public sector productivity increases with union cooperation, support, and involvement. The AFSCME 1980 Convention passed a resolution stating that 'AFSCME will encourage public management and effective leadership so that real productivity gains can be achieved.'

Less publicized are the four joint QWL Committees with New York state's Office of Employee Relations, including one with AFSCME security workers and another with the 100,000 member Civil Service Employee Association, recently affiliated with AFSCME. (See their joint regular *QWL Review* journal.)

Until recently the top levels of the AFL-CIO were at best neutral and at worst uninformed or totally negative about union involvement in QWL. This appears to be changing. Executive Secretary Tom Donahue provided an in-depth and thoughtful statement of his own position (not the Federation's) at the January 1982 union conference sponsored by the Labor Relations and Research Center at the University of Massachusetts, Amherst and co-sponsored by my institution. He opened with a strong recommitment to 'the conflict theory of labor relations, as the soundest basis for worker representation, worker participation and worker gains,' focussing on the workers' desire for a larger piece of the pie. After elaborating upon this position he then went on to say:

'I do believe that the adversarial role, appropriate to the conflict of collective bargaining, ought to be limited to the period of negotiation—and during the lifetime of a contract so arrived at, it ought to be replaced by a period of cooperation, aimed at maximizing the potential success of the joint enterprise, i.e., the company's business or production. The labor relations cycle ought to be one of periods of conflict (limited to the negotiating period) followed by that longer period of cooperation.'

Donahue went on to warn that 'any action that weakens a union, distorts the balance in its relationship to management, or its ability to represent its membership, will damage that union's ability and desire to participate in committees of any kind with a particular management.' Then, again:

'It follows, though, that any program which strengthens the union's ability to grapple with the new issues our members want addressed, any program which holds out real promise for the expansion of workplace democracy, ought to be grasped, minutely examined for flaws, reshaped as

necessary, polished and put in place—and then watched very carefully . . . One might be permitted a snide thought that management's real interest is in improved productivity. Maybe in the spirit of new consumerism and truth in labelling, we ought to insist on calling them 'Productivity and QWL programs'. But, so be it—the essential, potential value of the programs is not diminished to us, because we, too, have an interest in maintaining productive, competitive employers, and, secondly, because the timing also coincides with the 'greening of America' and of the American worker—i.e., the immense enlargement of the American worker's desire for recognition of his or her individual dignity, and for a job in which he or she is somehow involved and fulfilled.'

A bit later in his speech Donahue observed that 'Workers care very much about the work they do. They want the company they work for to be strong and profitable, and in the effort of making it so they are a virtually untapped natural resource of ingenuity and enthusiasm. That ingenuity can be put to work in a directly observable way when they are able to participate in decisions made on the shop floor, in the office, or in the hospital, or wherever.'

'As a tool used toward labor's basic goals, these quality of worklife programs can develop skill improvement programs, more flexible working schedules, greater job security and promotional opportunities, along with many other matters of great importance to the members we represent. So, other things being equal, unions have every reason to encourage and cooperate in any enterprise that will work to those constructive ends, for the benefit of workers and management alike.'

Predictions made by some observers of the QWL scene over the years that some day the international unions would become major vehicles for expanding the QWL approach are now becoming reality. My belief is that we are on the threshold of a vast expansion of QWL activity spread through unions, limited by the rate at which managements can adapt to the new thinking and processes, understand the benefits and buy the supply of third party consultants who understand both unions and management and are skilled at working with both.

Report on QWL in Europe

by David Jenkins

The economic squeeze, durability of change, and the case of Olivetti

There is a general feeling among observers of the industrial scene in Western Europe – that is, those observers familiar with trends in QWL – that the economic squeeze in recent times has had an effect on the general enthusiasm for quality of working life projects.

Both management and unions have been grappling with other intractable problems which are felt to have a higher-priority claim to their attention. The former are struggling to survive in a period of weak consumer demand, elevated interest rates and high inflation; the latter are striving to maintain job security and real income levels for their members. Under the circumstances, some QWL programs have become casualties in the fight for economic survival, particularly in situations where the level of commitment was such that the program was seen as an easily dispensable frill.

This point of view is also held by some governments, which, feeling the pressure to pursue counter-inflationary fiscal policies, see QWL as a prime candidate for budgetary restrictions.

A victim of this trend has been West Germany's 'Humanization of Work' program which, since its launching in 1974, has been the most strongly supported and heavily financed action of

its type, with a budget of some DM 120 million in 1981. Recently, the program has been drawing fire from several directions. A report prepared at the behest of the BDA, the German Employers' Confederation, criticized the program on several points. First, the researchers responsible for guiding and monitoring the QWL experiments receiving subsidies are scolded for having generated 'negative effects,' a result of their being 'too theoretical in their approach,' or 'too one-sidedly oriented to the workers' interests.' The report also argues that the economic aspects of projects have been neglected, and that difficulties have arisen in 'achieving an equilibrium between human and economic needs.' In other words, too much emphasis on job satisfaction and not enough on productivity. The law requires that unions be accorded a good measure of control over projects, and this has given rise to an additional sore point with managers – the report complains that the unions are too insistent on obtaining wage increases as the price for approving proposed projects, well before any evaluation can be made of their effects, or of what, if any, additional skills may be required from workers, thus justifying their reclassification into higher pay categories.

The unions, which were largely responsible for mobilizing the program in the first place, have also had their griefs. One has been that the results of the projects have been diffused inefficiently and in ways not useful to non-specialists. To help remedy this failing, the state recently established a Humanization of Working Life Centre in Dortmund, with the mission of spreading the knowledge which has been accumulated. (Since a main task of this centre is to build up archives and reference files useful over the long-term, and can only function with the cooperation of unions and employers, this fresh initiative is perhaps tacit evidence that, despite a temporary pinch, the long-term commitment to QWL of all parties concerned remains strong.)

Lately, the unions have been more caustic in their criticism. A few months ago, Karl-Heinz Janzen, a top official of IG Metall, the metal-workers' union, claimed that the program had been 'disappointing' and that workers had derived few benefits from it. He called for stricter

observance of the rules regarding the granting of subsidies under the program, to assure that workers and unions are fully protected, and also of harder enforcement of other legislation requiring the employer, in co-operation with the works council (managed entirely by workers even though the employer is obliged to finance its functioning), to pay attention to the effects of work organization and job design on employees. Specifically, this refers to paragraphs 90 and 91 of the Betriebsverfassungsgesetz (works constitution act) of 1972, mandating the parties to 'promote the personal development' of employees and 'consider the established findings of work science' in designing jobs. These clauses apply, of course, in all cases, whether the employer is receiving a state subsidy for QWL activities or not. To an extent, the diffidence of the unions stems from a reluctance to be, or to appear to the members to be, overly concerned with any matters other than Issue Number One in Europe today – rising unemployment. Hence the superficially disconcerting but perhaps tactically sound measure of appearing to be facing in two directions at once. This is a far cry from the type of eager call to action that frequently emanated from union quarters a few short years ago, such as this statement, in a 1975 analysis of the need for the program, by Mario Helfert, a prominent union theoretician: 'It has by now become obvious that workers and unions are no longer willing to accept inhuman working conditions as an unavoidable and necessary by-product of technological progress.'

Woes in Belgium

A similar situation has developed in Belgium. The Belgian Institut pour l'Amélioration des Conditions de Travail (IACT), formed by the state in 1977 to conduct research, stimulate experimental projects and engage in other actions along roughly the same lines as the German Humanization of Work Program (though with considerably less generous financial resources), has been suffering from a financial squeeze. Recently, representatives of the employers (who, with the unions, have

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CENTRE

New consulting staff

The consulting staff of the Centre has been enlarged by two new full-time members, Jan Mears and Don de Guerre. Ms. Mears joined the Centre after nine years with the Federal Government. Her most recent position was head of the QWL Unit responsible for the development of QWL throughout the Federal system. Don de Guerre has experience both in the public service and the private sector. Before joining the Centre he was the manager of organizational development with Miracle Food Mart, where he helped establish a socio-technically designed new food processing facility as well as tools to maintain and diffuse Miracle Food Mart's various union/management QWL initiatives within the corporation.

litions to the consulting staff represent an expansion of the resources for project developing the increasing demand for consulting services, as well as knowledge of QWL throughout the province of



Tom Rankin of the QWL Centre facilitates a group discussion at the Niagara-on-the-Lake seminar.

October 20 seminar

The Ontario Quality of Working Life Centre has been presenting one-day, introductory seminars on quality of working life since it first began operation in 1979. These seminars are held throughout the province and are co-sponsored with a local community college or university.

Over the past year, the design of these events has changed somewhat to accommodate the fact that the public is becoming more knowledgeable of and more seriously interested in quality of working life. Although still designed to introduce the public to the QWL concept in general, the latest seminars have also been designed to examine specific aspects of the field in greater detail.

On October 20, 1982, the Ontario Quality of Working Life Centre co-sponsored an introductory seminar with Atkinson College of York University. The seminar was held at the St. Lawrence Town Hall in downtown Toronto. Over 120 people, representing unions and management in both the public and private sectors, attended the event.

The agenda of the seminar included an introductory speech on quality of working life, several workshops dealing with specific topics, a joint union-management case presentation and a panel discussion.

The workshop topics included: how to get a QWL project started; sustaining and diffusing QWL; QWL in the public sector; QWL and labour-management relations; QWL and

workplace health and safety; QWL and technological change; and QWL and its similarities to and differences with quality circles. Several of these topics also formed the focus of a lively discussion during the panel session.

A highlight of the day was the presentation of the QWL project of Eldorado Resources Ltd. and Local 13173 of the United Steelworkers of America at Port Hope. The case was presented jointly by Gary McCracken, Port Hope QWL Coordinator; Bob Robertson, President, United Steelworkers of America, Local 13173; and Brian Pearson, Port Hope General Manager.

The what and how of QWL

Over the past year demand has been growing for more practice-oriented education in the quality of working life field. Many organizations and unions have been exploring the QWL idea long enough now to be ready for a workshop that would not only examine the 'what' of QWL but also seriously look at the 'how.'

On November 16-18, 1982, the Ontario Quality of Working Life Centre held a workshop on the 'What and How' of QWL. This seminar was held in Niagara-on-the-Lake. In order to enhance the opportunity for participation and interaction, enrollment was limited. Thirty-one people, representing union and management from 12 organizations, attended the event.

Jan Mears, Consultant.



Don de Guerre, Senior Consultant.

The seminar consisted of a mixture of mini-lectures, group discussions and case presentations. Three union-management QWL projects were presented and discussed - Shell Canada/ECWU Local 800 in Sarnia; Falconbridge/USWA Local 6855 in Sudbury; and the Ford Casting Plant/UAW Local 200 project in Windsor.

The response to the November seminar was so great that the Centre is offering 2 repeat seminars on the 'What and How' of QWL, March 1-3 and March 22-24, 1983. For further information, please call Tom Rankin at (416) 965-5958.

Swedish visit

On October 26, 1982, Centre staff and local guests hosted a one-day meeting with the joint committee of the Swedish Employers' Confederation and the Swedish Supervisors' Union Confederation in Toronto.

New publications

The Centre is pleased to announce two publications in its new series of "Working Papers":

Linking Arrangements and New Work Designs: A Study of the Coordination between Self-Maintaining Units and their Organizational Context by Harvey F. Kolodny and Barbara Dresner;

Using Commonsense in QWL by Merrellyn Emery.

Copies may be obtained free of charge from the Centre.

As well, the following titles are available and inquiries should be addressed to QWL Publications, Ontario Quality of Working Life Centre, Ministry of Labour, 15th Floor, 400 University Avenue, Toronto, Ontario, M7A 1T7.

The Ontario Quality of Working Life Centre - Organization, Policy and Program.

Perspectives on the Quality of Working Life - Proceedings of a conference hosted by the Ontario Quality of Working Life Advisory Committee in October 1980.



A discussion session during the Swedish visit to the Centre.

Issues in the Quality of Working Life, a series of occasional papers:

- No. 1, *Dealing with some obstacles to innovation in the workplace*, by Jacquie Mansell.
- No. 2, *The evolution of socio-technical systems, a conceptual framework and an action research program*, by Eric Trist.

- No. 3, *QWL Current Trends and Directions*, by David Jenkins.

QWL FOCUS - Newsjournal of the Centre, issues: Vol. 1, nos. 1, 2, 3; Vol. 2, no. 1, Vol. 3, no. 1.

Ontario QWL Centre seeks Information Coordinator

The Ontario Quality of Working Life Centre is looking for a creative and experienced person to assume overall responsibility for the Centre's Information Service. You will:

- develop strategies and practices for the diffusion of information about QWL
- edit and manage all Centre publications including the news journal *QWL Focus*, pamphlets, brochures and various research and working papers
- develop and maintain a comprehensive information system by initiating and developing contacts in the QWL field and scanning national and international developments
- fulfil public relations functions
- perform information/literature searches
- design and maintain documentation procedures for the Centre's education program and field projects

Qualifications

Excellent writing, editing and management skills; good understanding of the QWL field; experience in developing information networks and systems; ability to work in a team and adapt quickly to changing circumstances; excellent interpersonal and social skills; ability to design and develop new approaches in the field of information diffusion. Graduate training or equivalent experience in the information sciences would be an asset.

Persons interested in applying for this position should forward resumes by March 15, 1983, to the attention of: Dr. Hans van Beinum Ontario QWL Centre 15th Floor 400 University Avenue Toronto, Ontario M7A 1T7

Norwegian Royal Commission Studies Ontario QWL

by Wayne Roberts

Talking about quality of working life or industrial democracy is like talking to an Eskimo about snow. The subjects are just too complex and all-embracing to talk about in terms of one catch-all word. So, in both cases, a specialized vocabulary has developed, to distinguish on the one hand, the all-important differences between soft and hard snow, and on the other, the crucial variations in job design, employee involvement and co-operation.

It became very clear when the Norwegian Royal Commission on Industrial Democracy came to Canada that the Ontario Quality of Working Life Centre this February. The Royal Commission came to Ontario in search of new work environment models that could stimulate fresh thinking as Norway realizes its commitment to quality of working life during the 1980's. New unions, primarily in the white collar and professional sectors, have achieved promising and responsible in recent years, many of them are unfamiliar with the lessons of previous experience.

Norway also faces-to-face with worldwide economic problems such as unemployment and technological change, and the Commission is looking for ways to link work environment schemes with solutions to these overriding problems. Finally, industrial democracy and "quality of working life" have recently entered a new phase of public acceptance in Norway. As mainstream organizations of labour and management prepare to implement work reforms, the government wants to make sure all options are clear and available. For Thoralf Ovale, a Commission member and director of the Work Research Institute in Oslo, it's just another phase in the ongoing enthusiasm for work reform ideas that has created new evaluations "every tenth year since the turn of the century".

Hans van Beinum, Executive Director of the Ontario Quality of Working Life Centre, outlined to the Commission the Centre's commitment to five program areas: field projects, education, information, research and consulting.

The major thrust of the Centre is in the field project area, and van Beinum stressed the action-orientation of staff, who facilitate developments in the real world of work. For that reason, he said, "we get our feet wet, our hands dirty, and even occasionally fall on our faces."

van Beinum also described the Advisory Board which guides the Centre. Composed equally of labour and management representatives of high stature, he explained that the Board guarantees the Centre's professional independence and dynamic, non-bureaucratic structure.

Victor Pathe, Assistant Deputy Minister of Labour for Ontario, talked to the Commission about the industrial relations scene in Ontario.

During the 1970's, he recounted, there was a high incidence of membership rejection of contract settlements even though the settlements were recommended by the union leadership. In many cases, these rejections were more related to the poor relationship in the workplace than they were to the actual contract issues involved. In a sense, he said, contract rejections were an expression of hostility to prolonged grievance procedures and the inability of employees to influence developments in the workplace. The Minis-

try of Labour promoted the QWL Centre, he recalled, in the hope that it would assist in the development of a more stable labour relations climate.

The Norwegian commissioners wanted full details on the structures that guarantee independence for the Ontario Centre. They were also bewildered by, but enthusiastic about the decentralized approach to quality of working life in Ontario. In Norway, work design experiments have traditionally proceeded on the basis of top-level agreements by organized labour, management and government. Norwegian law even insists that work reform be the subject of good faith bargaining in all union contracts.

The decentralized nature of Canadian union locals and management structures prevents such an approach in Canada. But this Canadian necessity appears to offer some virtue to the Norwegians, now concerned with diffusing work environment concepts throughout their society.

Following their visit to the QWL Centre, the Norwegian commissioners toured the Ontario Art Gallery and viewed paintings by the Group of Seven. A curator explained that Canada's foremost national painters were inspired to capture the rugged realities of the Canadian north after studying turn-of-the-century Scandinavian artists. Sixty years later, Scandinavians and Canadians continue to learn from each other as they face the rugged realities of the 1980's.



Norwegian Royal Commission studies new options for work reform.

FORUM: Report on Europe continued from page 11

been responsible for overseeing IACT's operations) have called for its liquidation. The Fédération Générale des Travailleurs de Belgique, one of the two leading Belgian union confederations, which only a few months previous had been warning of the possible dangers inherent in these 'new' forms of work organization' being pushed by IACT, now laments the unfortunate 'destruction of a bipartite, national meeting place specializing in questions of work humanization.'

To be sure, these are scattered instances, and are more than outweighed by solid evidence of the underlying interest in QWL. Two other leading official agencies designed to promote QWL – the Work Research Unit in the UK and the Agence National pour l'Amélioration des Conditions de Travail in France – are continuing to supply knowledge and stimulate action in industry. But they mirror some current thinking. Similarly, another dimension of the supposed loss of impetus in QWL is the small place allotted to it in public discussion and debate. Social thinkers and other molders of public opinion who a few years ago were much concerned with worker alienation, assembly-line boredom and the like have shifted their attention to other topics. While the press in the US has in the last few years overflowed with coverage of QWL, quality circles and related subjects (the union-management programs in GM, Ford, AT&T, the steel industry), the attention being paid by journalists in Europe to this subject is well below the levels of the early 1970's, when it was a highly fashionable subject. But this is simply the nature of journalism. As a rule of thumb, it may be said that, whatever impression may be given by the public discussion of this or any other topic, the reality is invariably much more or much less exciting.

This leads to a question that has long intrigued and bothered QWL specialists – the sustainability of QWL projects. Are improvements in the organization of work apt to be the results of temporary fads, only to wither and die when the economic winds turn cool? A case that springs to mind is Corning Glass in the US, which was one of the leaders in QWL in the late 1960's and early 1970's.

The company's efforts, under the guidance of Michael Beer, showed excellent results, not only in terms of job satisfaction, but also in carefully documented increases in quality and productivity, and were highlighted in *Fortune* as a pace-setting example of what could be done. One weakness in the program might have been discerned in a 1970 paper by Michael Beer and Edgar Huse (entitled 'Improving Organizational Effectiveness through Planned Change and Development'), analyzing the Corning program. One conclusion: 'The commonly heard need for the top manager to be committed to change and an ideal pattern of management for his organization is much over-worked. This is not to say that it is undesirable, but it is far from necessary.' Perhaps. But the appearance is that Corning management was far from committed to QWL and, when the economy turned down in the mid-1970's, the QWL program was sharply cut back. Michael Beer left the company and is now teaching at Harvard Business School.

The case of Olivetti

What qualities in a QWL program contribute to its sustainability? Unquestionably, the key is *integration* – of one kind or another. One type of integration is the firm implantation of new forms of work in production technology. The radical design of the Volvo car assembly plant at Kalmar has been controversial, but one certainty is that it would be virtually impossible for a new management to do away with the innovations in work organization (group operation, autonomy, freedom from machine-pacing, etc.), so solidly are they built into the design of the plant. The same may be said for various well-known plants of other companies in Sweden and also Germany (Saab, ASEA, Daimler-Benz). Another variety of integration is integration in the management system – or, more accurately, in the corporate culture – so deeply that it cannot be dislodged. An admirable example is seen in the experience of Olivetti, the Italian maker of typewriters, word processors, computers and other office equipment.

One important ingredient in Olivetti's commitment to QWL grew out of management's traditional, somewhat paternalistic concern for employees, not an unusual tendency for a com-

pany which is the dominant employer in a small town (Ivrea, in northern Italy). During one particularly turbulent phase of Italy's chaotic labor troubles in the early post-war period, Olivetti's workers struck, occupying the factories. Management calmly ordered that beds be brought in so that the workers would be more comfortable. One consequence of the company's dominance of its region was a policy of caution when unemployed workers from the economically depressed areas of southern Italy began migrating to the labor-starved industrial northern cities. Not wishing to contribute to the social unrest it foresaw as a result of this phenomenon, the company hired only persons who had lived in the area for at least two years. The Ivrea area was thus spared the history of erratic population growth, municipal woes, social turmoil and urban blight suffered by neighboring Turin. (Olivetti's way of assisting the people of southern Italy was to construct a plant there, in the 1950's, when that was considered to be an unusually bold, not to say foolhardy, move.)

Thus it was only natural that the company would eventually make efforts to shape jobs in ways that were more acceptable to workers, and that such questions would be discussed with the unions. In the 1960's, management had begun upgrading jobs by assigning to operators the task of setting-up their machines. At about the same time, the unions started urging the company to make jobs more responsible and more autonomous. In 1966, machine operators' jobs were redesigned to include what were previously four separate jobs – machine operating, setting-up, giving approval to start work, and inspection during the work. As a result, friction between different employee categories and departments diminished, and quality rose. During the subsequent decade, all machine operators' jobs were renovated in this way.

A major factor was the delicate process of including the union in this work. In Italy, the unions began pressuring managements of major companies in the late 1960's to pay more attention to work organization. But the Italian unions have traditionally firmly insisted that (1) management-union relations are ruled by constant *contestazione*, or conflict, never cooperation, and (2) that all

dialogue between management and employees take place via the unions. This is true even in companies, like Olivetti, where relations with employees are quite harmonious. Therefore, the introduction of new organizational patterns through employee participation, as is commonly done in Scandinavia and North America, tends to be impractical in Italy. Discussions with unions on policy matters are ritualistic and formal. The unions wish to be informed of management intentions, but do not want to cooperate in the formulation or application of management policies. The formal clauses in union contracts thus assume very great importance. As early as 1971, a union contract at Olivetti spelled out in some detail the agreed objectives in redesigning jobs. Efforts would be made in the 'restructuring of tasks with the objective of enlarging and enriching jobs,' to 'eliminate continuously moving lines,' and to 'study new forms of organizing assembly operations, in order to broaden and enrich the job content.'

A different, but related element was intensifying competition in the equipment business, in great part due to the Japanese entry into his sector. The pace of production accelerated sharply and demand for product variants increased. Production runs became shorter. It was urgent that producers quickly adapted to changes in the marketplace. The inflexibility of fixed-pace assembly lines declined. It was slow and costly to train them to adapt to the market, and it was inefficient to train workers to do only specialized parts of highly fragmented jobs. A great concern in assembly lines has always been their vulnerability to disruptions. If one single post is vacant, the entire line must stop. This means extra costs – either for lost production when absenteeism occurs, or for standby workers ready to fill vacancies.

Still another factor was the mental health of workers. Dr. Francesco Navaro, professor of occupational health at the University of Milan, who has long served as a consultant to Olivetti, explains that, among workers on the assembly lines, there were frequent complaints of psychosomatic illnesses and 'nonspecific diseases' – digestion problems, nervous tension, trouble in sleeping, headaches – as well as numerous demands

to be shifted to other jobs away from the lines. This led to an examination of the work being done by these employees and, in the late 1960's, to an extensive study of assembly line work. Dr. Navaro notes: 'After some years on an assembly line, a worker is completely impoverished. Working on a two-minute task cycle, he can never learn anything else. After ten years, he is destroyed – not physically, but emotionally.'

The company's answer to these problems was the development of the Unità di Montaggio Integrata (UMI), or the integrated assembly unit. Limited experiments had been conducted in the 1960's, and as time went on the notion was polished and refined, with the help of outside consultants, such as Louis Davis of UCLA. (The above-mentioned union contract of 1971 was designed to facilitate this work.)

The basic UMI principle is the replacement of traditional assembly operations by small, multiskilled groups under a foreman, which do the entire cycle of assembly at prescribed qualitative and quantitative levels, but which largely manage themselves and do their own inspection and correction. All workers in groups must know at least two jobs, but most exceed that level. Job rotation is practiced, not on any systematic basis, but as needed in the groups' work.

Partly because of the lack of participation with workers in applying the UMI principles, mistakes were made, but the pattern was eventually introduced in all assembly work, and all assembly lines, which at one time were manned by about 6,000 workers, were abolished in 1976. A start was made in introducing roughly the same methods in machining operations in 1978. A spokesman says: 'If you go step by step, and make sure you are correct before you go another step, you can make mistakes, but you can adjust as you go along. What we have is a tool, not a fixed system.'

One result has been a capacity to adapt more smoothly to changes in the markets. Product design has evolved from electromechanical to electronic, and the company, with the help of UMI principles, has kept in step with the times. Another result was a sharp improvement in quality – the number of defects customarily

dropped by about 50% as soon as a switch to UMI was made, and dropped further, usually to about a fifth of former levels, subsequently. Another consequence has been a change in worker attitudes. When assembly lines were replaced by the UMI principles, requests for job changes dropped to almost zero. Dr. Navaro says the psychosomatic illnesses also almost completely disappeared. Since there are no more assembly lines, it is no longer possible to make 'before' and 'after' comparisons, but the absence of the former complaints leads management to conclude that the new system is far superior.

An unusually severe test for the methods was the change of control of the company that took place in 1978. At that time, Olivetti was taken over by a group headed by Carlo de Benedetti, who is now president. The company had been running at a heavy loss, debt was high, and marketing was poor. The new management added new products, launched aggressive new marketing policies, and in a short time has made the company into a leader in its field in Europe. Sales have more than doubled and profits are now satisfactory. But at least one factor has remained unchanged – production operations are still based on the UMI, and many observers believe this flexible instrument was a major help in the company's adaptation to new conditions.

The UMI thinking is embodied in very rough notions – the necessity of a 'complete' (unfragmented) job, feedback to operators on their performance, and the presence of learning opportunities. A company QWL expert explains: 'It is not a written philosophy. You must understand the importance of the culture of the company.' The UMI is an integral part of that culture. Managers have never been pressured to adopt the UMI, but there has never been any particular controversy about it, since it is an entirely natural Olivetti way of doing things. Most Olivetti managers have spent their entire working lives at the company, and have grown accustomed to the special atmosphere.

In the Olivetti context, the question of the durability of QWL seems almost irrelevant. Company policy on QWL was never a special separate activity, but an integral part of company operations – its relations with

employees, the realities of the markets, and needs for adaptability.

Is QWL necessary?

To return to our theme, the role of QWL in the present period of economic weakness, what can be said about the future? Will QWL again be seen as a necessary and valuable activity despite the present economic gloom?

Without hazarding any dangerously precise economic predictions, it can be safely said that economic cycles go up as well as down. With this in mind, it is possible to point to some indications that QWL thinking will be quite urgent in the future – possibly in the very near future.

This can be clearly seen in the white-collar sphere. Some observers of the QWL scene in recent years have been puzzled by a relative lack of attention being paid to QWL in white-collar work, at the very time when major technological advances have been made in this area. Experience shows that, as jobs become more entangled with technology, the range of 'organizational choice' widens and the opportunities for creating either good or bad work organizations increase. The thought therefore arises that, logically, we should be hearing more about QWL in the office than is currently the case.

One explanation for this situation is that knowledge, about QWL or anything else, takes a considerable amount of time to get diffused. Frederick Taylor, when asked in 1912 how many companies were then using his principle of scientific management, replied with some irritation: 'In its entirety – none; not one.' At the time, he had been tirelessly campaigning for his ideas for 30 years. The slowness of diffusion of QWL ideas should also not surprise.

But there is one other pertinent factor at this moment. The years of economic troubles have coincided with a period of major growth of office computerization, distributed data processing, networking, word processors, etc. Worries about defective work organization have been obscured by worries about unemployment. Monica Breidensjö, an expert on work environment with the Swedish white-collar union confederation

About the author

David Jenkins is an American and has been living in Europe since 1964. He writes and consults on matters related to industrial relations and QWL. In addition to having written a book and several articles (e.g. Job Power, 1973; QWL – Current Trends and Directions, 1981), he also publishes a monthly newsletter, The Jenkins Work Report, which covers European industrial relations and QWL.



TCO, said recently that computerization has generated many 'negative consequences . . . social isolation and monotonous jobs which are psychologically trying,' but that these facts are not being dealt with. 'The work environment,' she says, 'is being treated today as a "soft issue"; problems relating to the psychological and social environment are not being taken so seriously. One reason is the threat of unemployment, meaning that demands are being toned down. The effects are also seen on union demands. There is a considerable amount of self-censorship . . .' There are numerous other indications that the problems are real. A few years ago Edmond Maire, head of the French union confederation CFDT, warned of the dangers of the 'taylorization' of office work. Such opinions are today commonplace.

Wirtschaftswoche, the German business weekly, recently cautioned that

the new office technology would mean drastic alterations in relations between people, and that the consequences of this are not being sufficiently investigated: 'New relations between employees mean that more thought must be given to job content, qualifications, and flexible organizational structures than has up to now been the case – and this must be done not in closed conference rooms, but in discussions with those affected. Examples of inhuman introduction of new technologies in offices are numerous.' Dr. Joachim Scharioth, head of the 'man and technology' section of the Battelle Institute in Frankfurt, points out: 'All evidence indicates that the new office technology is neither good nor evil in itself. For the most part, its positive or negative effects depend on the organization – how the technology is fitted into the flow of functions and how these functions are restructured. The organization of the technology is more important than the technology itself.'

To be sure, there is controversy. A Danish bank, Lollands Bank, surveyed its employees working with an on-line computer system, and found that 78% felt that they had much better, or somewhat better contact with their co-workers after introduction of the system than before, and a similar proportion saw their jobs as being less routine.

The lack of firm information, indeed, is one reason why more and better knowledge will be most likely generated. There is another widespread source of puzzlement, the lack of progress being made by the so-called 'office of the future' – many elements of which have been available for some time. Customers are said to marvel at the impressive technological wizardry incorporated in the equipment available, but complain that knowledge of how to put it all together is in drastically short supply. In the past, manufacturers of computer hardware have largely left the problems of work organization to their customers. But it is quite probable that they will eventually see the provision of guidance and counsel on work organization as an essential selling tool. If so, this will lead them directly into the area of QWL.

CLEARINGHOUSE

Recent developments



Anna

QWL in the federal public service: The Treasury Board Secretariat's Quality of Working Life Program is now under the umbrella of the Innovative Management Practices Section of the newly formed Human Resources Division. This Section will deal with the areas of Technology, Productivity and QWL.

The QWL program is responsible for implementing the QWL policy which was approved by the Treasury Board in October, 1982. Its mandate includes:

- the provision of information and guidance to departments and agencies exploring or initiating QWL programs;
- the evaluation of the impact of QWL programs on personnel policies and recommendations on proposed changes, as required;
- promotion and development of QWL training modules;
- initiation of pro-active programs as required;
- integration of QWL with such areas as technology and produc-

For further information, please contact the Innovative Management Practices Group, Human Resources Division, Treasury Board Secretariat, 127 Wellington Street, 6th Floor, Ottawa, K1A 0R5. Telephone: (613) 760-7644.

Canada

Mandatory shop-floor participation legislated in France. Discussions of 'participation' have long been common in France, primarily due to the constant, though not very precise, affection for that principle expressed by General de Gaulle. The only concrete legislation on the subject of any importance has been a 1967 law instituting mandatory profit-sharing in companies, which has given a small fraction of all workers relatively small amounts of money each year.

Thus it can be regarded as something of a major step when a new law, pro-

moted by the President, François Mitterrand, and passed in August 1982, has established an obligation for company managements to listen to their workers' suggestions.

Applicable to all companies with over 200 employees, the new law grants to workers the right of 'expression - direct and collective - on job content and work organization, as well as on measures designed to improve working conditions in the company.' An important point in the French context is that the law gives the workers the right to put forward suggestions to management on the *content* of the work, and not merely on safety and hygiene questions (which have long been covered in other laws).

ANACT: The October meeting of the ANACT Council endorsed the policy orientation defined by the new director, P-L. Rémy. It takes as its starting point the position that ANACT should focus on 'the consequences of technological change on working conditions and organization, and on the links between changing working conditions and productivity.' Six areas have been selected for particular concern: wage-earner 'expression,' the economic effects of working conditions, the impact of automation, managing working time, analysis of working conditions and architectural and machine design.

Norway

Norwegian Cooperation Council: The Council has been disbanded. Its director, Lars BJORHEIM is working at the Employers' Association (NAF) and its research and information officer, Mr. Bernhardsen, is at the Work Research Institute. The Council has been superseded by an Organization Development Council which, following a new annex to the spring 1982 basic agreement between trade unions and employers, manages a new fund of more than \$1 million US.

Sweden

Swedish Union pushes QWL activities: QWL may be somewhat in the shad-

ows in some parts of Europe during the current economic difficulties, but the Swedes, who have long enjoyed a position of prominence in this field, have continued their interest in QWL - as indicated, for example by the recent publication of a booklet entitled 'Förändrad Arbetsorganisation' (roughly translatable as 'Changing Work Organizations'), issued by the Svenska Metallarbetarförbundet (the Swedish metalworkers' union).

The booklet, a 125-page summary of some essential facts and viewpoints (i.e., union viewpoints), was written for the use of shop stewards and other union members who are involved in QWL work - or who want to nudge their companies in this direction. Though reflecting union opinions, the booklet would in most respects gain the approval of neutral QWL specialists and managers.

An underlying principle in the union's view of work organization is given as follows: 'A functioning democracy in working life requires the development of democratic work organizations.' This refers not only to the design of work organizations at the immediate level of the workers, but also includes 'representative democracy' (minority representation on boards of directors for workers, which has been mandatory since 1973) and 'economic democracy' (the controversial proposal for 'wage-earner funds,' which the unions have been demanding since 1976 and which the recently elected Social Democratic government may or may not legislate for them). Workers have also possessed, since 1977, other miscellaneous types of influence, such as the right to negotiate on all major company questions, and in fact any questions, however minor, if they insist (managements must agree to the demand to negotiate, but need not pay any attention to worker viewpoints in making decisions).

A number of aspects of work organization are defined in the booklet as sufficiently important that workers should strive to gain influence over them: production planning, the direction of the work, materials ordering, working methods, maintenance,

arrangement of working times, budgeting and the like. The law does, in fact, give workers an opportunity to discuss any and all of these factors. Some tips, which are quite familiar to QWL specialists, are given as criteria to follow in exercising influence over the design of jobs and organizations – varied work tasks, flexibility in work roles, learning opportunities, contact with co-workers, independent control of working conditions, experiencing some worth in the work being carried out. The basic principles of autonomous groups and other forms of work organization that may lead to more democratic working conditions are briefly but concretely described. About a dozen excellent case histories are presented, illustrating positive and negative points, from leading Swedish companies (Volvo, Saab, LM Ericsson, Hasselblad, etc.).

Most of the emphasis is on ways to improve workers' conditions, but it is nevertheless clearly stated that one purpose of democratic work organization is the higher productivity that is therefore possible: 'There is much to gain by improving work organizations. Our members can thereby gain a better working situation, and also create more efficient companies and therefore better job security.'

Recent events

Canada

Canadian Council on Working Life:

The Canadian Council on Working Life held its first business meeting and conference from October 30 to November 2, 1982 in Toronto. This newly founded national organization was first conceived after the initial success and momentum established by the International Conference, 'QWL and the 80's' held in August 1981 in Toronto.

After 12 months in existence the Canadian Council on Working Life (CCWL), has attracted over 500 individual members, 18 corporate members, as well as three government departments, four associations, six unions, one founding patron and 10 students.

The Toronto meeting which was designed to officially launch the Council brought together nearly 200 people; from management, from unions



The Honourable Russell Ramsay, Minister of Labour for Ontario, addressing the inaugural CCWL Conference.

and from other groups interested in the development of this field.

The conference was designed in four distinct but interlocking parts:

1. Plenary session and workshops on key trends in economic and technical change.
2. Plenary session and workshops on key trends in values and social change.
3. Case study presentations from a number of Canadian organizations.
4. Business meetings and discussions about the organization, constitution, mission statement and election of new board members for the coming year.

Council business

Sessions were held throughout the conference during which CCWL members could discuss either in plenary or in interest groups, the business of the Council. Members gave the newly elected board the task of reviewing the mission statement, and further amending the constitution.

A proposal to establish the first regional forum group of the Council from a group of people in Western Ontario/Eastern Quebec was well received and it is hoped that many more such groups will be formed in the coming months. A caucus of women coming from unions, management and academic and consulting fields was also formed.

The newly elected board of directors for the coming year is:

Joe Fabian, Polysar, Sarnia

Carl Johnson, Air Canada, Montreal

Albert Alon, Miracle Food Mart, Toronto

Bert Hawrysh, British Columbia Employees' Council, Vancouver

Peter Warrian, United Steelworkers of America, Toronto

Clay Perry, International Woodworkers of America, Vancouver

Daryl Bean, Public Service Alliance of Canada, Ottawa

Emile Boudreau, Quebec Federation of Labour, Montreal

Bob Oppenheimer, Concordia University, Montreal



Eric Trist leads a small group discussion at the CCWL Conference.

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Regina QWL Workshop: A QWL Workshop was held in Regina on November 8 and 9, 1982. It was co-sponsored by the Saskatchewan Network for Quality Work Life, CUPE 600 and the University of Regina Extension. Further information may be obtained from Kalburgi Srinivas, (306) 584-4717 or Anne Smith, (306) 565-7556.

Working people: a seven part series of luncheon lectures was recently sponsored by the Ontario Federation of Labour and the University of Toronto. Topics covered included such things as: worksharing to ease unemployment; QWL programmes; alternative approaches for constructive collective bargaining; and working women and the equal pay issue.

For further information contact the Community Relations Office at the University of Toronto at (416) 987-6564.

England

First World Congress on Employee Relations: held in London on November 24-26, 1982. Organized on behalf of the International Management Foundation, this congress examined international trends that have an impact on employee relations, in order to reach an understanding of the implications from both a management and union standpoint, and to look specifically at strategies that help to improve communications with employees. For further details contact David J. M. Hems, 1 Union Street, Bedford, MK40 1SF, England, telephone 01234 222111.

International Federation for Information Processing (IFIP) Conference: 'System Design', 20-24 September, 1982, Riva del Sole, Toscana, Italy. This conference was organized by the IFIP Working Group 9.1, Computers and Work. It was a working conference, addressing, in particular,

the following problem areas: development of action strategies to be used by groups of employees to control technological development in their organizations; experiences with the use of technology agreements and collective bargaining; education and the development of knowledge; and tools for systems design and the need for new technology. The conference provided a meeting place where people connected with these developments were able to exchange experiences and discuss future strategies. Further information can be obtained from: Fred Margulies, IFAC, Schlossplatz 12, A-2361 Laxenburg, Austria (tel: (02236) 71447).

The Netherlands

European Association of National Productivity Centres: A meeting was held in The Hague from June 2 to 4, 1982 to examine the different aspects of experiences with work humanization and democratization in the Netherlands to that point in time.

Papers that were presented addressed key issues of concern such as: Dutch experiences from 1977 to 1982; shifts in focus from 1977 to 1982 in other countries such as Sweden; the impact of technology, such as the micro-processor, on job design; the necessity for recurrent education and an examination of legal and institutional responses to the rapidly changing environment.

For further information about this meeting contact: A.C. Hubert, Secretary General, European Association of National Productivity Centres, Rue de la Concorde 60, 1050 Brussels, Belgium

Scotland

QWL in the Third World: A symposium on 'Quality of Working Life in the Third World' was organized by Kalburgi Srinivas at the 20th International Congress of Applied Psychology, held recently at Edinburgh, Scotland. A volume is planned to bring together the presentations made here and other relevant papers. Those interested in contributing to this volume should contact Dr. Kalburgi Srinivas, University of Regina, Regina, Saskatchewan S4S 0A2.

Sweden

Torontogruppen: The 'Torontogruppen' held its second meeting at the Stockholm School for Economics on November 18, 1982. The group originated with the two dozen Swedes who attended 'QWL and the 80's' in Toronto. Eighteen people from universities, unions, institutes, agencies and industry attended that meeting, but some twenty-five others have asked to become active members, although they were unable to attend that day. While many of the more than forty interested people did not attend the Toronto conference, all are actively involved with working life questions. At the meeting they committed themselves to more active collaboration and more frequent meeting.

Torbjörn Sternberg and Ake Phillips of the Economic Research Institute at the Stockholm School of Economics presented the Torontogruppen with some interim results of their study on the 'Long-term Effects of Organizational Development: A Study of Work Organization, Participation, Working Conditions and Organizational Effectiveness.' It is a follow-up study of many Swedish companies which in the late 60's and early 70's developed and tried new work organizations, usually based on sociotechnical system designs and autonomous work groups.

United States

National Labor Management Conference: September 9/10, 1982. Sponsored by the Federal Mediation and Conciliation Service in cooperation with the National Association of Area Labor-Management Committees, this event drew 900 participants to Washington, D.C. from 39 states, Canada, and as far away as American Samoa. The conference focussed on the problems and issues involved in closer cooperative efforts between representatives of labour and management in both the private and public sectors.

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According to the Conference Coordinator, Peter Regner, one of the primary goals of the conference was to fight the 'fear of trying' which prevents some labour and business executives from getting involved in new or different activities affecting the quality of work life. To that end, the conference highlighted the experiences of 24 different labour-management groups representing efforts in plants, along entire industries, on city-wide levels, and among local, state, and federal government employees. Several national figures, including the U.S. Secretary of Labor, Raymond Donovan; Harvard Business School Professor, D. Quinn Mills; Ford Motor Company Vice-President, Peter Pestillo; Congressman Stanley Lundine; CWA President Glen Watts and FMCS Director, Kay McMurray.

For further information: Peter L. Regner, Federal Mediation and Conciliation Service, U.S. Government, Washington D.C. 20427.

Fifth Ecology of Work Conference, June 9-11, 1982, Pittsburgh Pa: This two and one-half day conference featured keynote speakers and presenters from both union and management roles. Two keynote addresses, one from Henry W. Bried, Director, Participative Management Program, Motorola Inc. 'Meeting the Challenge of the Japanese . . . and the World's' and the second keynote speech from Linda Lampkin, Director, Research Department, American Federation of State and Municipal Employees, 'The 80's: Cooperation or Confrontation?' In addition to the keynote presentations, the conference featured live case studies of a number of work settings within the U.S. These sessions featured presentations by teams of managers, workers and union representatives who were able to speak directly from their own experience on how and what they had done, and what they had learned.

For further information contact Tom Chase, Conference Coordinator, 67 Dover Point Road, Dover, N.H. 03820

1982 National Conference of the OD Network: 'Breakthroughs - creating a world that works,' October 3-6, 1982, Lake Geneva, Wisconsin. One of the keynote speakers was Irving Bluestone with the topic 'Economic Impacts of a changing world on Labour/Management Relations and roles the OD practitioner could play with Labour.'

For further information: OD Network, c/o Harris Bank Training & Development, P.O. Box 755, Chicago, Illinois, 60690, telephone (312) 461-7917.

Forthcoming events

Canada

Couchiching Conference 1983: our future with microchip technology: what choices do Canadians have?

The Couchiching Institute is now planning its 52nd Annual Conference which will take place July 28 to August 2, 1983, at Geneva Park on Lake Couchiching, Orillia, Ontario.

The preliminary program begins with a keynote address on: The Nature of Work in the Information Society and continues with sessions on:

- The effects on employment in the next five years
- Present evidence of future trends: who is affected and how?
- Present evidence of future trends: changes in the quality of work
- The impact on women
- Designing the transition
- Canada's role in microchip technology

In addition, the Institute plans to install its own 'video arcade' for the duration of the conference, so as to give participants 'hands-on' experience with microtechnology equipment and to show off its potentialities.

The Couchiching Institute on Public Affairs is a non-profit, non-partisan organization whose goal is to provide an unbiased forum for the examination of diverse views on issues of concern to Canada, Canadians and the world.

For further details, call (416) 489-9212 or write: Alan Pearson, Conference Co-chairman, Couchiching Institute on Public Affairs, 20 Eglinton Avenue East, Suite 203, Toronto, Ontario, M4P 1A9

Eastern Ontario and Western Quebec Canadian Council on Working Life Forum. As part of a national movement, the first regional Forum of the Canadian Council on Working Life (CCWL) was formally established in Ottawa on November 26, 1982.

The objectives of the Eastern Ontario and Western Quebec Forum are to provide a non-partisan arena for dialogue on working life issues between the main stakeholders or constituencies, to raise awareness, and foster an exchange of information and experience on such issues, with a view to improving working life in organizations.

The Forum Coordinating Committee is made up of seven members who were elected on November 26, 1982 for a one-year term and whose role is to coordinate activities and programs, provide a communication link, and identify and administer financing.

The first Forum program activity will take place on March 8, 1983 at 8:00, Room 200, West Block, House of Commons. The topic to be addressed by panelists is "Ethical Reflections

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and the Work Place: A Dialogue on Jobs, Work and People", as raised in the recent statement by the Canadian Conference of Catholic Bishops. This event will be preceded by a business meeting.

For more information on the Eastern Ontario and Western Quebec Forum, please write to: CCWL Regional Forum, c/o Bell Canada, P.O. Box 8239, 170 Laurier Avenue West, Room 202, Ottawa K1G 3J4 or contact Lucie Brunet at (613) 593-7631 or David McDuffe at (613) 238-3717.

Horizons in Occupational Health and Safety: from May 8 to 13, 1983, in Ottawa-Hull, the Canadian Centre for Occupational Health and Safety will host to an expected 2,000 participants from around the world.

ding experts will present scientific and technical papers. There will be film showings, and health and safety sessions on agriculture, mining, construction, research, information and the role of safety engineers. Industrial problems of developing countries will also be addressed.

For further information contact: Organizing Committee, Canadian Centre for Occupational Health and Safety, 500-300 Slater Street, Ottawa, Ontario, K1P 6A6, telephone (613) 238-3719, telex:

Socio-technical systems course: 'Designing more effective organizations to improve productivity and the quality of working life: a socio-technical systems approach,' will be held in Toronto from March 21-25, 1983.

For further information contact: John J. Cotter and Associates, 11165 Valley Spring Lane, North Hollywood, California 91602.

Undergraduate course in Socio-technical Systems Analysis: A course (with hands on project work) will likely be offered in the 1983 Winter semester at the University of Regina. It will be open to other than university students, by special arrangement. For further information contact Dr. Kalburgi Srinivas, (306) 584-4717.

England

Bath International Exploratory Conference: 'Management in Changing Circumstances' February 20-26, 1983: This conference continues the series begun with the joint Bath-Tavistock conferences. The 16th in the series offered by the University of Bath, the purpose of the conference is to explore group situations and to relate them to members' working experience of understanding and action in changing circumstances. Registration and more detailed information from Geoffrey Hutton, Centre for the Study of Organizational Change and Development, University of Bath, Claverton Down, Bath BA2 7AY, telephone 0225-61244.

France

International Conference Planned: Eurojobs has commenced the planning for a large, international conference which will focus on organizing for productivity and quality. It will be held in Paris, France from 12-14 September 1984. They are aiming for 700 participants. For information contact: Eurojobs, Hovslagargatan 5, S-111, 48 Stockholm, Sweden.

United States

Midwest QWL Institute: The Institute is administered by the Michigan Quality of Work Life Council. Its purpose is to provide the knowledge and skills that are the key to successfully initiating, implementing, and maintaining the QWL process.

The Institute's faculty is offering courses covering the exploration of basic issues, building QWL skills, and the development of new knowledge. The courses have been designed to foster the highest possible level of self-sufficiency on the part of companies and unions involved in QWL. The details of the Midwest Institute's 1982/3 course offerings can be obtained by contacting Carolyn Pomeroy M.Q.W.L.C., 755 West Big Beaver, Suite 508, Troy, Michigan 48084, telephone (313) 362-1612.

Northeast Labor Management Center. Quality of Work Life Institute. A workshop on "Designing and improving employee involvement for continuing productivity and QWL increases" will be held March 9-11, and April 7-8, 1983 in Dedham, Massachusetts. To register, contact the Center at 30 Church St., Belmont, MA 02178, USA. Telephone (617) 489-4002.

REFERENCE

The Ontario Quality of Working Life Centre operates an information service which includes the distribution of information kits, brochures and articles, etc., the performance of literature searches, and the publication of papers on QWL. For information contact: Ontario Quality of Working Life Centre, Ontario Ministry of Labour, 15th floor, 400 University Avenue, Toronto, Ontario, M7A 1T7, tel: 416-965-5958.

Selected readings



The following articles are a sample of some articles which deal with the theme of this issue 'Learning and the quality of working life'. They are available free of charge from the information service of the Centre.

1. Emery, Merrelyn. *Using Common Sense in QWL*, Working Paper #1, January, 1983, Ontario Quality of Working Life Centre.
2. Michael, D.N. and Mirvis, P.H. 'Changing, Erring and Learning' in *Failures in Organization Development and Change*, Mirvis, P.H. and Berg, D.N. (Editors), John Wiley & Sons Ltd. 1977.
3. Williams, T.A. *Learning to Manage Our Futures*, John Wiley & Sons Ltd. 1982.

New publications



Agassi, Judith Buber: *Comparing the Work Attitudes of Women and Men*. Lexington Books, D.C. Heath and Company, Toronto. This book is a follow-up of a previous book, *Women on the Job: the Attitudes of Women to Their Work* (Lexington Books, 1979). It deals with two basic problems of the world of work, that of the alienation from work and that of the difference between the sexes in various work attitudes, ranging from the instrumental attitude to work through active concern for various negative aspects of the work situations, interest in advancement, self-confidence about one's ability to perform more challenging work, and

work satisfaction, to commitment to employment and self-image as a basic breadwinner.

Bekemans, L. (ed.): *The Organisation of Working Time*; European Centre for Work and Society (1982).

This book contains papers presented at a seminar sponsored by the EEC in October 1981, and is the first in a new collection entitled *New Patterns in Employment*. The subjects covered in this volume are: *Alternative Work Patterns* by B. Teriet; *Central Issues in Part Time Work* by J.P. Jalade; and *Employment Policy, Organisation of Working Time and Unemployment in Belgium* by B. Martens. Available from the Centre at P.O. Box 3073, 6202 NB Maas-tricht, Holland; Gld 20.

Bowditch, James: *Improving the Quality of Worklife: A Survey Methodology*; Auburn House Publishing (1982). This is a longitudinal study of worklife environment, the methodology of its assessment and the impact on it of organizational change.

Brandstatter, H.; Davis, J.H.; and Stocker-Kreichgauer, G. (eds.): *Group Decision Making*; European Monographs in Social Psychology 25; Academic Press, London (1982).

This book develops from the idea that the prototype for group decision making is a task-oriented collection of individuals who interact and, despite preferences and disagreements, reach a consensus. All the contributions are studies of particular themes in group decision making and not merely interpretations of data from a few specific case studies. The book is an up-to-date account of theoretical notions and methodological approaches as well as empirical findings. The book is divided into six parts, each in a particular area - social decision schemes, choice shifts, social emotions in group decisions, bargaining, social influences in individual judgement, and 'group-think.'

Dowling, M.J. (ed.): *Employee Participation: Practice and Attitudes in North-West Manufacturing Industry*; U.K. Department of Employment; Research Administration; Research Paper No.27. (1981).

This report is based on a programme of interviews in private sector firms in Manchester and the North-West of England conducted between October 1978 and March 1979, with senior management from 25 large-scale companies and full-time officials of 14 trade unions. The aim of the interviewers was to establish: current practices vis-à-vis employee participation in corporate decision-making; the views and attitudes of management and trade union officials concerning various forms of employee participation; whether changes were being planned in this field and, if so, what kind of changes.

Emery, Merrelyn: *Using Common Sense in QWL*, Working Paper #1, January 1983, Ontario Quality of Working Life Centre. This paper is a challenging analysis of the needs for learning and training in the quality of working life. Emery acknowledges the "gap in our appreciation of the reasons for QWL and the ways in which such learning is encouraged". She re-examines some traditional assumptions about the nature of the learning process itself and the ways in which those assumptions and the systems based upon them have encouraged dependence upon expert instruction rather than the innate knowledge or commonsense of people themselves.

Emery contrasts the "expert" and the "common sense" approaches to developing QWL, querying the popular myth that extensive training is required to "prepare" people for QWL and that QWL improvement and redesign must be conducted by experts in the field.

She illustrates this theme in two areas — learning to get started (for "it is in this phase that we see the greatest conflict in assumptions about how people learn") and the skills which self-managing or semi-autonomous groups must learn in order to function effectively.

Central to Emery's argument, is the assertion that learning environments are intrinsically motivating and that the "creation of such environments is a prerequisite to acknowledging human individuality, dignity and responsibility". The creation of a learning environment at the workplace will inevitably have transferable effects upon the community and society as a whole.

It is this transferable benefit and the importance of new forms of work organization to reversing the current Depression, which, Emery maintains, will encourage us to invest more of our already scarce resources in QWL. Such ventures, however, must at the same time, be undertaken more economically. Here, in the final analysis, lies the significance of shifting the balance from training to learning, from dependence upon expert knowledge to using common sense. For, as Emery concludes "in so doing we will not only reduce the conventional cost, we will also increase our human capital and invest in the future".

Eurojobs: *The Age of Job Design*. Eurojobs, a joint Group on Work Organization and Job Design (the joint sponsors are the European Association for Personnel Management and the European Federation of Productivity Services) has just published this new booklet in English written for them by David Jenkins. It provides some contextual background on job design and a survey of QWL experiences in the major European countries. It is available at no charge from Eurojobs, Hovslagargatan 5, S-111, 48 Stockholm, Sweden.

European Foundation for the Improvement of Living and Working Conditions: *Physical and Psychological Stress at Work*; (1982). The last year of the Foundation's four-year programme (1980) saw the preparation for a 'state of the art' study on research into both physical and psychological stress at work. It was undertaken by a group of six experts and co-ordinated by the Tavistock Institute of Human Relations. It was then evaluated by representatives of government employers and trade unions.

The aims of this study were to: 'collate the existing knowledge on what is generally termed 'stress' – both mental and physical – with particular reference to working conditions; identify the different conceptual and methodological assumptions that lie behind these studies, in order to evaluate their significance; develop a coherent conceptual framework for interpreting them, specifying its identifiable causes and effects; and provide considerations for policy makers, including provision for legislation, which would also specify areas for future empirical research.'

The study is accompanied by an extensive bibliography. It can be obtained from Loughlinstown House, Shankill, Co. Dublin, Ireland.

European Foundation for the Improvement of Living and Working Conditions, *Annual Report 1981*. The report covers the work program of the Foundation for 1981 and 1982. One new form of work with which it is experimenting, 'teletravail', described as 'work at a distance, sometimes performed at home and utilizing the means of telecommunication and data processing systems'. The Foundation feels it is 'of essential interest for future working patterns and conditions.' The Foundation is undertaking an initial survey of the extent and spread of teletravail, and will make a search for background literature and examine the future potential of this form of work.

European Trade Union Institute: *Redesigning Jobs: Western European Experiences*, Ed. Christer Asplund (1981). In his introduction the editor examines the need for the redesign of jobs and the establishment of new forms of work organization in the light of new challenges and threats to Western European trade unions in relation to changed technology and its quantitative and qualitative consequences.

The report is divided into six main chapters, the first being the introduction. It then goes on to cover *Some Background Trends* (trade union interest; job content; new technology and its impact; and other relevant factors). Chapter III is concerned with the redesigning of jobs; Chapter IV: *Experiences, Solutions for Change and Trade Union Responses*; Chapter V is a guide on *How to Influence Job Design*; and Chapter VI gives a summary of the other chapters and conclusions derived from them. The two annexes cover the *ETUC Programme for the Improvement of Working Conditions*; and *Selected Research and Advisory Institutions in Western Europe*.

European Trade Union Institute: *Collective Bargaining in Western Europe 1980-1981 and Prospects for 1982*; (1982).

This volume gives the situation generally and by country, of the economic background to collective bargaining in 1980-81 in the EEC,

EFTA and Spain. The subjects covered are: wages, purchasing power and pay systems; working time; paid educational leave; non-wage benefits; health and safety; industrial democracy, work organization and trade union rights; job protection and job creation; level of bargaining; duration of agreements; sectors not covered by agreements; industrial disputes; and, finally, future prospects for 1982.

It concludes with a questionnaire to member organizations, and gives a list of ETUI publications. The report is available in English, French and German, and will shortly be published in Danish, Dutch and Italian. Available from the Institute at: Boulevard de l'Imperatrice 66 (Bte 4), 1000 Brussels, Belgium.

Forslin, J., Sarapata, A. et al: *Automation and Industrial Workers: A Fifteen Nation Study*; Pergamon Press, Oxford, England (1981).

This volume is divided into two parts. It is concerned with the impact of advanced technology on the attitudes of workers, work content and working conditions. In Part 1 preliminary findings and analyses are given of five of the countries – Sweden, France, Poland, the Soviet Union and the United States. Part 2 covers Austria, Czechoslovakia, Denmark, Finland, West and East Germany, Hungary, Italy, the U.K. and Yugoslavia.

Lundstedt, S.B. and Colglazier, E.W. (eds.): *Managing Innovation: The Social Dimensions of Creativity*; Work in America Institute (1982).

This volume covers the following subjects by a number of experts in various fields: *Social and Technological Innovation* by Harvey Brooks; *The Human Side of Technological Innovation: Labor's View* by S.J. Lav and S.H. Ruttenberg; *Absorption and Adaptation: Japanese Inventiveness in Technological Development* by Tetsunori Koizumi; *Human Factors Affecting Innovation and Productivity* by Michael Maccoby. Available from the Institute at: 700 White Plains Road, Scarsdale, New York 10583, U.S.A.

Michigan Quality of Work Life Council: *The Work Life Review*. This publication covers a wide range of labour-management concerns and initiatives currently underway in the United States. Subscriptions are available at \$15 annually by writing to, Michigan Quality of Work Life Council, 755 West Big Beaver, Suite 508, Troy, Michigan 48084.

National Center for Public Productivity: *National Directory of Centers for Productivity and Quality of Working Life*. Describes the activities and program areas of 28 key productivity and QWL centres working in the public and private sectors. Available from The National Center for Public Productivity, John Jay College of Criminal Justice, CUNY, New York, New York 10019.

National Union of Provincial Government Employees: *Micro-technology*: This booklet addresses the issue of micro-technology from a union perspective. It discusses the impact on employment, women, health and safety, and the legislative and collective bargaining solutions. It reviews what unions have accomplished so far, including the text of 43 existing contract clauses on issues ranging from retraining to the right of pregnant women to refuse work at video display terminals.

It reviews existing legislative protection from the adverse effects of technological change and pinpoints areas where improvements should be made. It also presents checklists for union negotiators, to assist in the preparation of bargaining demands, and one for VDT operators to help them assess the quality of their work environment. For information contact: Robert Douglas, Director of Communications, 204-2841 Riverside Dr., Ottawa, Ontario K1V 8N4, Tel. (613) 526-1663.

New Ways to Work: *Work Times*. This is a new international quarterly published to provide information exchange on alternative work time. It

includes information on the range of work time alternatives: job sharing; compressed work week; flexitime; permanent part-time employment; and work sharing. It covers the social, economic and political angles of such work styles, and is to be a professional tool for practitioners, sociologists, directors of projects, employers, union officials and QWL organizations. Available from: New Ways to Work, 149 Ninth Street, San Francisco, California 94103, U.S.A.

Siegel, Irving H. and Weinberg, Edgar: *Labor-Management Cooperation: The American Experience*. A comprehensive overview of labour-management cooperation at the national, industry, community/regional, and worksite levels, as well as a special look at such efforts within public agencies. Published by W.E. Upjohn Institute for Employment Research, 300 S Westnedge Avenue, Kalamazoo, Michigan 49007.

The Swedish Center for Working Life, *Arbetslivcentrum*, recently published its updated English-language overview of its 1982-84 research activities (16 pages). Arbetslivcentrum also publishes a range of English language QWL reports and studies, all available free of charge. A recent example is *Job Design and Automation in Sweden* (110 pages) by Bo Göransson et al, 1982. For further information write to Arbetslivcentrum, Box 5606, S-114 86 Stockholm, Sweden.

The Swedish Employers Confederation publishes a variety of booklets that encompass many of the innovations for which Swedish industry has become known worldwide.

The range of publications deal with such topics as:

- New forms of work organization
- Industrial engineering and personnel management
- Worker participation
- Relationships between payment systems and work organization

The following titles are currently available: *New Factories, Job Reform in Sweden, Pay Reform in Sweden, Autonomous Groups and Payment by Results, The Volkswagen Report, The Saab-Scania Report, The Scan Väst Report, The Volvo Report, The Orrefors Report, The Mafors Report, The Volvo Kalmar Plant*. For more information on these publications and others contact Birgitta Sandström Eriksson, Swedish Employers Confederation, Information, S-103, 30 Stockholm, Sweden.

Timperley, S. and Ondrack, D., (eds.): *The Humanisation of Work: A European Perspective* (1982).

The concern of this book, is with the quality of working life. The main themes arising from the articles in the book are: the introduction of QWL; the meaning of QWL; QWL experiments and programmes; and QWL as a social phenomenon. The work is divided into five parts. Part 1, 'Work Restructuring – the Concept and the Reality', includes a chapter by Berth Jonsson about the strategy employed by Volvo in the development of production technology and job design. Part 2 contains 'Case Studies of Work Restructuring' including a pilot project in a biscuit manufacturing company; and three experiments in enrichment of work in different French firms. A further chapter is concerned with a case study in a Swedish insurance company – 'Organizational change and quality of life' and 'Job redesign and the U.K. insurance industry'. Part 4 gives 'a critical perspective on humanisation and ongoing experiments in Germany', and white collar work restructuring in Europe. Part 5 covers trade unions and the humanisation of work and the role of values in a third industrial revolution. The 'realities and prospects' of the humanization of work are summed up in conclusion by the editors. Available from Armstrong Publishing, London Business School, Sussex Place, London NW1 4SA, England.



Journal extracts

United Steelworkers of America. *Towards a Trade Union QWL Agenda*. In recent years more and more trade unions, rather than reacting to management initiatives, have been actively developing their own union position on quality of working life. The United Steelworkers of America has just published *Towards a Trade Union QWL Agenda*, tracing the historical development of work organization from a trade union perspective and outlining the concerns of workers in adopting new forms of work organization.

The *Agenda* argues that the fundamental reasons behind management's interest in QWL are not humanistic concerns but rather concerns over declining productivity and the need to redesign work in order to fully utilize the new, highly automated, continuous process technologies.

The *Agenda* includes discussion, from a trade union viewpoint, of issues such as the right to organize, technological change, the role of government in promoting QWL, socio-technical analysis and design, the psychological implications of work reorganization, hiring practices and the effect on the individual and on the union or team work.

It concludes that if the interests of all workers are to be taken into account, QWL must be implemented through the collective bargaining process. This is a break with usual practice in which collective bargaining and QWL are seen as separate, although related processes.

Not a 'how to' manual, the *Agenda* is written to provide unionists with the background necessary to adequately deal with the growing interest by employers in QWL.

The perspectives and principles outlined in the *Agenda* have recently been put into practice by the Steelworkers in two QWL programs in Ontario.

Copies of *Towards a Trade Union QWL Agenda* are available from the Ontario QWL Centre. For further information on the *Agenda* itself, contact: Ian Curtin, National Representative, United Steelworkers of America, 55 Eglinton Avenue East, Toronto, Ontario M4P 1B5

U.S. Dept. of Labor, Division of Cooperative Labor-Management Programs: *Resources Guide to Labor-Management Cooperation*. Describes 181 worksite programs and lists industry, regional and area labor-management committees along with key resource centres. Entries are indexed to permit business and labour leaders to identify viable programs in their region, industry or union. (Copies available for \$7 each from the U.S. Government Printing Office).

U.S. Dept. of Labor, Division of Cooperative Labor-Management Programs: *The Operation of Area Labor-Management Committees*. A research report assessing why ALMCs have been formed, how they have functioned to date, and identifying criteria to assess ALMC effectiveness. Available from the U.S. Department of Labor, Division of Cooperative Labor-Management Programs, 200 Constitution Avenue, N.W. Washington D.C. 20210 (single copies free on request).

York University, Action Learning Resources Group: *"Perceptions — A Study of Labour-Management and Labour-Government Relations."* This report deals with trade union perspectives on changes in the workplace, collective bargaining, management, new technology and programs such as quality of working life. It is available from the Action Learning Resources Group, Room 216, Benthune College, York University, Downsview M3J 2R2.

Economic and Industrial Democracy: Vol. 3, No. 2, May 1982 is a special issue on Poland. Each of the four papers in this issue is contributed by a Pole. Figa in his paper, *Societal Sources of Polish Renewal*, 'traces the loss of legitimacy of the ruling stratum to the dramatic variations in the Polish economy, linking it to various sources of anti-party movements among the workers and the intelligentsia'. The focus of Minc's paper, *The Reasons for the Polish Crisis of 1980-81* is on the economic cycles and their impact on the formation and revision of political values in Poland. Pohorille gives details of the Polish economy and their effect on economic distribution; and Wilczynski tells the story of the rise of the Poles in their fight for a free working class organization.

Human Relations: Vol. 35, No. 3, March 1982 contains the following: *Job Satisfaction and Life Satisfaction: An Empirical Evaluation of their Interrelationship* by T.L. Keon and Bill McDonald is a survey of job satisfaction, life satisfaction and work related attitudes administered to 129 employees of an autoparts factory. The purpose of the study was to investigate the relationship between job and life satisfaction; the results suggested that the two variables were jointly determined.

Other articles are: *Top Managers' Beliefs and Rationales for Participation* by J.W. Dickens; *The Relative Contribution of Perceived Skill-Utilization and other Perceived Job Attributes to the Prediction of Job Satisfaction: A Cross-Validating Study* by G.E. O'Brien; and *Work Group Flexibility: Development and Construct Validation of a Measure* by Kamil Kozan.

Human Relations: Vol. 35, No. 5, May 1982 has an article by Dr. Aaron Nurick on 'Participation in Organizational Change: A Longitudinal Field Study.' The study, which was carried out under a long-term quality of working life experiment, is

part of a national effort to examine collaborative union-management problem-solving and change implementation.

Integrator: Journal of the European Association of National Productivity Centres, April 1, 1982, includes the following: a summary of Norway's 1982 Productivity Campaign; *The Role of the Danish Technology Agency in Promoting Productivity*; *Guidelines on Improving the Working Environment and Working Life at the Danish Technology Agency*; and a piece on the Israel Institute of Productivity by Tony Hubert.

National Productivity Review: The second issue of this journal of productivity management, Vol. 1, No. 2, Spring 1982, includes the following articles. Marta Mooney's piece on *Organizing for Productivity Management* is based on interviews with productivity managers at twenty-three firms, and describes the evolving strategy of such management.

Employee Ownership and Industrial Relations: The Rath Case gives a detailed account of this project by two consultants at Rath, C. Meek and W. Woodworth, in which they describe the problems that led to the conversion, the union-management co-operative structure, an assessment of the results, and a comparison with other employee stock ownership plans that offer ownership without employee participation.

In his article on *Integrating Computer Systems in Organization Design*, James Taylor describes how socio-technical system design methods have been applied to achieve maximum integration and performance. He also presents two case studies: one where a government agency computer system fosters organizational paralysis; and the other where the socio-technical approach helped to integrate the computer system into the organization of a warehouse.

Forging the Workteam: Beyond Quality Circles by Tom Jackson, shows how his 'Quality Systems' approach to generating productive energy in a work system combines aspects of quality circles, problem solving, and team building, and is designed to improve operating performance in a relatively short time.

Personnel Management Review: Shell International Petroleum Company, #52, December 1981-March 1982, concentrates on the implications of the 'micro-age' - data processing, union reactions to microprocessors, etc.

An article by Margaret Butteriss (SIPC, London) entitled *Office Development - the Social Challenge*, covers such things as how the implications of office development will affect other areas of business, how change will be managed, and what choices there are. She concludes: 'If we continue to identify and manage the social consequences of office development rather than allow them to flow over us, we have every possibility of improving the flow of information and enriching the jobs of those involved.' W.A. Davison of Unilever has contributed a piece on the implication for personnel of microprocessors. The Japanese have tried to answer the question of how a labour union reacts to microprocessors. Hanko van Beinum, of the 'Economist' Intelligence Unit, puts forward his ideas of the impact of the 'space shuttle' on office automation - the choices to be faced by office workers. Professor Howard Rosenbrock's article, entitled *Engineers and the Work that People Do*, discusses also what they don't do - i.e., design jobs that match human abilities. Unless they, that is, the engineers, realize that the human element is all important in their designs and seek collaboration with the social scientists, this mismatch will persist.

Social Change and Technology in Europe; Information Bulletin: #4. 1982. Commission of the European Community. This fourth issue of *Social Change and Technology in Europe* is a continuation of the first one, and updates and develops it. The countries covered are Holland, West Germany, Italy, France, Great Britain and Belgium. The Dutch report contains summaries of one ma-

jor report on the social and economic implications of micro-electronics in Holland, and gives the reactions of the Council of Central Employers Organizations. Germany's contribution concerns the government's programme for the 'Humanization of Working Life', within which a special programme on micro-electronics will have 100m DM devoted to it over the next three years.

The Italian report is an attempt to survey the state of information and action in Italy on the social and economic impact of micro-electronic-based information technology.

The French report concerns itself with the social consequences of the introduction of information technology since the new government came into power in May 1981, and defines the main lines of its policy.

The British report is mainly concerned with events during the last three months of 1981, and is based largely on meetings and readings of the specialist press and research literature.

Belgium reports its government's activities, the trade unions' viewpoints and those of the employers, and says that the social impact of new technologies is only just beginning in that country.

The *Information Bulletin* can be obtained from: Miss Sheila Hanna, DG V/A/2, Building Archimede, 5th Floor, Rue de la Loi 200, B-1049, Brussels, Belgium.

Transatlantic Perspectives: German Marshall Fund Publication; The February 1982 issue (No. 6) has an article on how *Unions and Management in Europe Seek to Ease Transition to New Technology* by Steve Early. The author feels that in all probability productivity will be increased by the introduction of automated equipment, microprocessors and robots, but will also raise 'serious issues for workers affected by the new technology'. However, 'unions and management in the United States and Europe are seeking ways to ease the transition.' The article gives the findings of a trade union study group from the U.S. who visited European unions to get their responses to these issues.

Research in progress

Social and psychological effects of word processors

The increasing use of word processors in all kinds of organizations in Britain brings with it unique opportunities, which may at present be wasted because of a widespread lack of awareness. This project aims to highlight the major problems and pressures associated with new office technology; to define the effects of these problems in terms of behavioural and health outcomes; to develop strategies to cope with the problems and to promote, with effective utilization, the facilities offered by word processors.

An initial survey of users in commerce and industry has been conducted and a selection of organizations enlisted to cooperate in the later stages of the research. A pilot

study using in-depth interviews has been completed in which the expectations and fears of users, their attitudes towards new technology, their perceptions of its usefulness, its impact on individual jobs and the office as a whole, were explored.

The data generated by this pilot study has been analyzed to provide the basis for a questionnaire. A job satisfaction measure, a health measure (MHQ) and a range of demographic details are included. The

questionnaire is currently being circulated to the major sample group. Data thus generated will be subject to multivariate analysis in order to establish which social and psychological characteristics are predictive of user satisfaction. The overall results should provide valuable information to be used in future implementation of word processors and also contribute towards improved new technology training programs.

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Management in transition



"Reaves' experiment made managers edgy . . . 'Paul, aren't you afraid you are going to lose your authority, if everyone knows your job? Aren't you giving away your authority?' Reaves thought about it. 'Since I started giving it away,' he said, 'I've never had so much authority.' "

M. Maccoby, *The Leader*



Cover by Ben Mark Holzberg

One cannot separate management and QWL; they are intrinsically connected. This is also true for unions and QWL. In fact management, unions and QWL are all interrelated. Together they form a set, a triangular set of relationships, whereby a change in one side of the triangle inevitably will affect the other two sides.

In this issue of FOCUS, we will look at the management-QWL side, and particularly at the way the role and style of management and the development of QWL are linked. This link is rather complex because it is two-way. The application of the values and principles of QWL in an organization has major implications for the management system. At the same time, the actual development of QWL approaches in the workplace is heavily dependent on and determined by the way management does. If all goes well, the relationship between QWL and management will develop into a fruitful positive process based on mutual reinforcement.

QWL is a general notion, and refers to the nature of the relationship between people and their work environment. However, the basis for QWL is given by the way jobs are organized and work is organized. This is the rigid bureaucratic organizational model, its fragmented one-dimensional approach and its implied image of man as a commodity. QWL means creating an organization which functions as building blocks of semi-autonomous groups. People are actively involved in the decision-making processes affecting their own interests.

Today, in the dynamic and changing environment we are living in, demands on the organization in terms of flexibility, active participation, and learning. These correspond with the organization characteristics of QWL.

In essence, QWL is an organizational design strategy, an organizational response to today's reality. That is the reason why QWL is so important for organizations today in their efforts to be effective and in their struggle to survive in an environment which is becoming increasingly competitive and unpredictable.

An organization which consists of semi-autonomous parts, each with its internal coordination and controls, obviously makes different demands on management than does a more traditional bureaucratic structure. As all organizations are open systems, management must constantly match the actual and potential capacities of the enterprise to the actual and potential requirements of the environment. This is true for all levels of the organizations from supervisor to the Chief Executive Officer.

It will be clear that this "matching" cannot be done by means of a fixed set of methods or techniques. In addition to traditional technical management skills, managers need knowledge of and skills for dealing with social processes. However, the ability to make judgements about actual and potential capacities of the organization, as well as about present and future environmental requirements, demands more than technical competence. It requires leadership and commitment. It also requires the ability to take distance, to reflect, to "go into a helicopter" to view the scene, and to look at oneself.

The successful leader draws out, promotes and defends attitudes and values that are shared by the members of the enterprise. Leadership means the ability to express organizational objectives in line with these values.

Managers in an organization based on QWL values and principles must confront the task of promoting and developing autonomy and self-management within the system. They have to bring out the ability and willingness of people to handle responsibility. They have to promote the learning of the people within the organization and of the organization as a whole.

In order to facilitate the learning of others, whether they are members of self-managing groups, or other managers, managers must meet two requirements.

First, they must be able to comprehend other people, to have insight into the attitudes and feelings of others, in other words empathy. One can call it social intelligence, i.e., the

ability to identify with others and to understand the position of the other.

Second, it is difficult to help others with the kind of learning involved in QWL (e.g.; learning to handle authority, to work with and within groups, to become confident with one's own competence, and especially learning to explore) unless one is in touch with one's own learning style and process. This can be called learning to learn. Good management within QWL requires the ability to recognize and understand the way one responds to and deals with new experiences. Above all, it requires the capability and the readiness to learn from the way one learns, to improve one's learning. Such learning requires high levels of personal insight. It means being aware of one's biases, one's values, one's motives, and one's defense mechanisms.

To many, QWL may seem very "radical", since it represents a new organizational paradigm. However, QWL is not trying to change the essential nature of organizations, or the essential role of management. To the contrary, QWL recognizes the basic characteristics of organizations, and the fundamentals of the management process. QWL allows both the organization and management to develop in ways which are effective and appropriate in today's world.

Hans van Beinum

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Supervision in transition



Where do supervisors fit in QWL projects based on increased worker autonomy?

Larry Hirschhorn teaches in the Social Systems Sciences Program at the University of Pennsylvania. He and the staff at the Ontario QWL Centre researched QWL projects across Canada and the United States to come up with this hands-on approach to new patterns of supervision.

The anonymity of all individuals and companies has been protected, but all quotations and references come from active participants in ongoing projects.

QWL means many changes, but one thing never changes. The work still has to get done. QWL is not "business as usual", but the organization must still be managed.

Quality of working life means a new way of managing, a new way of getting the work done — by sharing decisions, responsibility and learning across all levels of the organization.

That means a new role for management. Not just a new style, based on polished manners and communication gimmicks — but a different function.

Under QWL, the role of management has to change, and so does the climate on the office or shop floor. These will improve as the organization changes, as new structures that encourage participative problem-

How do you put QWL into practice?

What's the bottom line, and how do people on the front line find it?

How can supervisors juggle new demands for dignity, learning and independence . . . and still keep on schedule?

Professor Larry Hirschhorn and the QWL Centre staff look at the special problems, challenges and rewards of supervisors in QWL settings.

solving are put in place. Desirable communication and personality styles will be vested in the system as supervisors acquire skills in managing systems, not just tasks and people.

A changeover to QWL will bring about organizational effectiveness and personal growth. But like all other breakthroughs, it will have its share of growing pains and teething problems. Supervisors are on the front line of many of these transition difficulties, and this article is an attempt to bring experience to bear and help supervisors avoid repeating some common errors.

Until recently, the problems faced by front-line supervisors under QWL have been neglected by promoters of work reform. Too often, supervisors have been viewed as villains out to

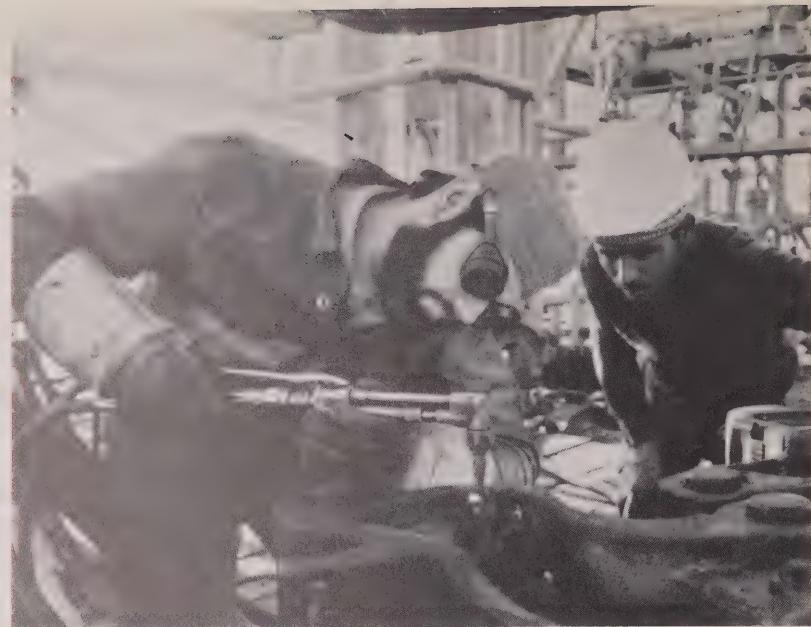
sabotage new schemes for distributing power and responsibility.

Writers who make these accusations are quick to criticize, but slow to understand, all the problems that supervisors face when QWL is introduced. "Whose ass is going to be on the line when this thing falls apart?" was the natural reaction of one foreman. "You're giving your humanistic lecture to the wrong guy," said another. "Tell my boss."

Before condemning these supervisors as "doubting Thomases" caught up in status anxieties, it's worthwhile seeing the problem from their point of view. They are asked to "play it loose," to "loosen the screws" all week, but they have to "pick up the loose ends" and "get this done by Friday."

They are not privy to the top-management overview of large-scale social and market changes. Top management looks outward, and their decisions often befuddle those who must focus inward. They are expected to consult with people "below," but no-one "above" has consulted with them. "If managers want men to talk with the workers, then managers should talk with the foremen," one supervisor put it.

Like the transition process itself, the transition process initially involves psychological tension for supervisors. After all, they were brought up under certain views of managerial effectiveness which now have to be overcome. Their position in the chain of command is no longer as clear and visible as it once was. If new roles and responsibilities are not clearly outlined, confusion



Repairing giant tongs on the spot requires high levels of judgement and autonomy in the workforce. The traditional "line" functions of supervisors are not relevant here.

and anxiety – even a sense of betrayal – are inevitable.

Supervisors cannot function effectively under QWL unless these double binds are undone. They must have assurance that their salary, employment, and indeed their role, are secure. They must be involved in all phases of QWL redesign; they should, in fact, meet regularly as a group for peer support and learning. Evaluation and performance schemes must be adjusted to reward supervisors for trying out new roles. Otherwise, supervisors will fear being punished for work-team errors, and will hold onto practices that avoid harassment from above. Supervisors who are interested in promotions also need to know that they can be credited for group as well as individual performance.

If these conditions are met, then supervisors can enjoy the excitement of a new role that promises to release them from "roadrunner" and "flak-catcher" positions, and opens up avenues for leadership ability. They can step out of their old policing and firefighting shoes and try on some new hats – begin to develop as coaches, teachers and co-ordinators.

New challenges

These considerations will not eliminate the difficulties supervisors face under QWL. They merely assure

that difficulties can be faced in a creative way.

At this stage of QWL development, supervisors must still blaze new trails that will set them apart as leaders. Traditional theories of management do not apply to the complexities of work-group life.

QWL supervisors must learn how to motivate and control without resorting to what one supervisor called "the traditional manipulative tools." They must facilitate the work-group process, while removing themselves from its centre. They must understand group dynamics, and the techniques of "leading from behind."

Problems commonly arise when supervisors confuse the QWL management system with their stereotype of the QWL style. Thus, many well-intentioned supervisors try to avoid "being too bossy," or exercising too much authority, and try to restrain themselves and "hold back." These efforts lead supervisors away from the real challenges of passing on their expertise or experience, and of maintaining on-going consultation with work teams. Indeed, some managers undermine the learning process precisely because they fail to intervene when necessary.

QWL is not a work-place version of "do your own thing." It is not the ab-

Shopfloor power

"Anyone familiar with the realities of manufacture will be conscious of shopfloor ability to plan and control the work done. If this ability is not allowed positive expression, it will take negative shape... In the words of a recent commentator: 'The question is not whether power should be shared, because power is already being shared. The question is whether the sharing is being done effectively!"'

David Jenkins
"The Supervisor Solution"

dictation of leadership, or management by default. It is an approach to developing systems that allows everyone to learn and develop, to fulfill themselves while fulfilling their jobs.

A supervisor is not "in charge" in the same way as before, but this does not mean that supervisors can avoid participating and intervening when their direction is needed. Indeed they must intervene and participate more consciously than before, because they must help train work groups for new responsibilities.

Many problems in QWL plants developed as a result of supervisors who "held back" too long, and then over-corrected in a panic. In both cases, they mistook the *style* for the *substance* of management.

At one work-redesign plant for instance, workers were insufficiently trained to handle new equipment. "There we were up to our knees in junk because we didn't know how to manage the technology," one worker recalled. Top management "got the jitters," he charged, and imposed a new level of supervisors as a short-term solution. Workers interpreted this as management's low commitment to QWL ideals. "They covered their asses and got Head Office off their backs," one worker complained. "But it was a unilateral decision. The decision should have been made collaboratively."

"This company had serious problems with the QWL concept," the worker continued. "They grafted a radical organization onto an old one, and we ended up with panic. Despite their support for QWL, top management had old ideas about supervision and how you manage a start-up."

"There was another option," this worker insisted. And there was. The 20-20 vision of hindsight tells us that the problem lay in a poorly designed system for monitoring development of the project and for identifying and working through possible changes with all those involved. The rapid turnaround in supervisory style did not betray commitment to QWL as much as it demonstrated lack of appreciation of the need for ongoing learning. Workers and supervisors did not need to go back to an old style of supervision; they need to go forward to a new style of learning.



No-one likes to work with a boss looking over their shoulder. But QWL supervisors are mistaken if they fail to participate and provide leadership.

Sharp unpredictable swings from "lax" to "strict" supervision are common when supervisors fail to participate in decision-making. Participation in decision-making cannot be avoided. It can, however, take many forms – initiation, consultation, being involved or approval of recommendation – but if participation in decision-making is seen as a yes-no, in-out choice, problems will develop.

At one wholesale warehouse, for instance, a supervisor "held back" from dealing with a work team's inability to develop a plan for rotating shifts. After considerable time had passed, the supervisor "moved in,"

and imposed a schedule. Again, the supervisor appeared "bossy" "when it came to the crunch." In reality, his role had not been appropriately developed in the early stages of planning.

The simple rule of thumb is: workers who are experiencing difficulty want help. They do not want to be bossed, they do not want to be blamed, they want to tap the experience and knowledge of someone who can help solve the problem.

Thus, there was no resistance from self-regulating work teams in one factory when management assigned an expert to the team. "I can learn a lot from him. He started as a techni-

cian and knows the line," one of the workers remembered. "The men are now more co-operative and energetic. We get things done quicker."¹

The responsibility to participate, to train, and to provide resources does not require policing. The two are as different as chalk and cheese. Here, it is worth remembering that QWL is not a "gift" to the workers; on the contrary, it demands new qualities and responsibilities of them. QWL supervisors must learn to trust the process, and not act like the over-anxious gardener who kept pulling up the flowers to see how the roots were taking.

QWL makes a commitment to providing "elbow room" for workers, and this includes room to make experiments and mistakes without fear of reprisal. Learning cannot take place without mistakes. Trainers who teach drivers on the long-haul rigs encourage mistakes, so that drivers will learn crucial lessons on how to correct for an error. In the same way, the manager of a major chemical plant trains himself to keep calm when mistakes are made. "When oil



Workers in QWL projects don't want to go back to old styles of supervision. They want to move forward to new styles of learning.

spills on the floor, you treat it as experience value," he says. "Were there sufficient valves? Were materials blocking the valve?"

Looking for a scapegoat accomplishes nothing. Checking for a system error, learning how to correct an error — that is the bittersweet job of QWL supervisors.

System committees

Of course, all of this seems easy on paper, which leads to the next point. Confusion of management style and substance, or hesitation about personal and group dynamics, are so common to QWL projects that some ground rules should be put down on paper. That's how to turn attention toward a system, and away from the touch-and-go of particular personalities and situations.

Although QWL emphasizes system redesign, the system requires a high order of teaching, learning, and communication ability from supervisors and workers. In the transition period, when everyone's "testy and testing," it helps to de-personalize difficulties by setting out clear procedures and expectations. It also helps, participants in one project be-

The perfect failure

The perfect failure concept arises from simple recognition that all research and development is inherently risky, that the only way to succeed at all is through lots of tries, that management's primary objectives should be to induce lots of tries, and that a good try that results in some learning is to be celebrated even when it fails . . .

. . . Tolerance for failure is a very specific part of the excellent company culture — and that lesson comes directly from the top. Champions have to make lots of tries and consequently they suffer some failures or the organization won't learn.

"One vital observation about failure: it's a lot less punishing with regular dialogue. The big failures, the ones that really leave scars, are usually the ones in which a project was allowed to go on for years without serious guidance."

T. Peters, R. Waterman
*In Search of Excellence,
Lessons from America's
Best-Run Companies*

lieve, to slow things down and give people time to understand what's happening.

Successful QWL plants spend time developing social system committees, norm review boards, good-practice handbooks, and relating QWL developments to the collective agreement. They meet in a problem-solving environment and monitor specific problems of the transition to QWL on an on-going basis. Rules and procedures set out general guidelines for predictable behaviour and for conflict resolution, and thus reduce individual anxieties.

These committees and review boards also provide a format for building ongoing redesign into the system. They build flexibility and self correction into the system.

It's been found that when workers and supervisors feel secure about the rules and the fairness of review boards, everyone feels freer to try something new and better. Ironically, a set of rules and a sense of order at the cross-plant level do not create bureaucracy but openness.

So far, this article has concentrated on *problems* confronted by supervisors in QWL settings. There are two reasons for this approach.

First, the QWL movement is mature enough that we are translating theory into action. We have learned about the need to improve both.

Second, the FORUM section of our news journal, based on interviews with supervisors pioneering the implementation of QWL in Ontario, gives better evidence of the virtues of QWL than any general overview.

And that is the ultimate test. Projects have their starts and stops, their highs and lows. They have their moments when "catch as catch can" is the driving force. And no one is ever sure where it's all going. "It was helter-skelter," one proud QWL manager of an Ontario mine told us, "but we built a 1983 Ferrari out of spare parts."

Reference

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QWL - Views from the front line

How do you "break the ice" when starting up a QWL project? What tests have to be passed? What happens to supervisors once QWL has been established? How do they feel about the changes they've experienced? What would they do differently?



Ron Dakers

"Managing people rather than events"

To find the answers to these questions, Tom Rankin and Jacquie Mansell of the Ontario QWL Centre talked to those with first-hand experience – supervisors and managers involved in joint union-management QWL projects.

"They don't hear you until a crisis comes along"

Real Sarrazin and Louise Gaumond, supervisors at Canada Post. Hank Salin, team leader at Dominion Foods. Ron Dakers, executive vice-president at Eldorado Resources. Gerry Kingsley, warehouse supervisor at Falconbridge. Nina Willcocks, revenue office manager, Ontario Ministry of Consumer and Commercial Relations.



Real Sarrazin



Nina Willcocks

"We learned the hard way"

They don't claim credit for the success of their projects – that credit belongs to all participants. But they do claim to have learned something about the QWL process. And they talk frankly about the problems they had to overcome and the challenges they see ahead.

Breaking the ice

"We had to clear the air"

Everyone was suspicious at first. Everybody was scared. We didn't know where we were going.

First, we had to clear the air with a joint union-management statement that no jobs would be lost as a result of QWL. That was a big relief for everyone, especially for me as a supervisor. I had been worried that I would be declared redundant.

We got caught up in the jargon of "socio-technical design" for about a year, and then we had a "brain-storming" session in our warehouse committee meeting.

We started to redesign my job as a supervisor and that's how we broke through. Out of 25 tasks that we identified, there were 13 tasks that workers on the shop-floor wanted to handle. It worked out very well.

Gerry Kingsley

"They don't hear you until a crisis comes along"

We just crawled along for a while. Everyone was a bit confused because QWL is a very hard concept to pin down. I used the analogy of turning a small apartment unit into a condominium, where people maintain their own unit and have voting rights on common areas. I was desperate for some way to explain it.

The basic requirement is trust. After all, risk taking isn't something that people rush out to do. So, before moving into the unknown, you have to become a solid group. People won't take risks unless they trust each other.

It's all in how you deal with everyday problems that come up and hit you over the head. People listen to you when you talk about new and fairer ways, but they don't hear you until a crisis comes along. Then they measure how you deal with it. That's how they find out whether you behave in a fair way, or whether you're just talking about fairness as a way to get gold stars for yourself.

Nina Willcocks

"Employees are somewhat skeptical"

I think it's probably easier to establish a QWL program in a brand-new plant, but there are still problems.

The start-up of a new plant is always a difficult period for everybody, including management. We sometimes get too busy to pay enough attention to personal relations that are forming.

It's also hard to introduce a new concept, like the QWL program, in an area with a work force that's used to more traditional management styles. Employees are somewhat skeptical and may look at it as another one of management's gimmicks. It takes some time to show that they will benefit as well as the company.

Apart from the need to be patient, I think I've learned two lessons. First, any program that drags out at the start loses momentum. Second, management has to continue motivating the concept and introducing it directly into their management style.

Senior management should be involved from the early stages, so that they have a full understanding of what's involved and where the program leads. Our own program suffered stops and starts, and it has

required some initiative on my part to keep the program going. I think that's the role of senior management.

Ron Dakers

"The workers had to test us"

It took at least six months before the workers felt at ease with us. They didn't trust us, and suspected that something was behind our move, that we would end up taking more than we gave. These problems all led back to a lack of trust at the start. We started with information sessions where we really tried to inform employees so they could decide if they wanted to go ahead with the project. And when the vote was actually taken, it was 100 per cent in favour.

In a sense, the workers had to test us – and make us prove that we weren't after anything from them, that we were only trying to create a better place to work. After a while, they "tried" us. One of the first things they came up with was a staggering of hours and lunch periods. There was no problem in achieving this.

Once they saw results, it started to work. People thought: "Maybe management does mean what they say."

Real Sarrazin



QWL committee at Canada Post, Data Conversion Centre of the Computer Operations Branch

On the line

"Everyone chips in now"

At first, I figured my job would become redundant, that they wouldn't need me anymore. But that's not so. I think they need me more than before, because I've got time to go out in the field and work with people in the shop.

Most of the paperwork that used to take up to five hours a day is now handled by the workers. Everyone chips in now, and things get done automatically.

Before, I had to walk around and say: "How about sweeping the floor." I was a bit of a policeman. Now, I'm more of a co-ordinator, a coach.

I have a better feeling because I'm closer with the fellows. I don't have to go home and wonder: "Geez, am I going to get the cold shoulder tomorrow?" Now I have a much better feeling.

Gerry Kingsley

"It was rush, rush, rush"

Communication between managers, supervisors and employees used to be very bad. I had to look at my work-load and distribute it. It was rush, rush, rush; I had the work to look after. The employees were saying they wanted to talk to the supervisors, but we never had the time.

I am still busy now, but I have more time to talk and to actually supervise. So I have a bit of a personnel function in my job. There is lots of communication. You get to hear if the staff likes something or not. A lot of times it's better, because you get other points of view. We make better decisions.

We supervisors have to give our share too. In QWL, you're so close together, sharing the responsibility. Communication with the employees – that's the main thing.

Louise Gaumond



A greenfield site warehouse takes shape as a QWL project. Hank Salin was a member of the design team and a team leader.

"It's still a real world"

I think the main thing about the "do's" is to be very realistic; you are still living in a real world. Which brings up the "don'ts" – don't promise some fantasy world where everything is peachy and rosy. Otherwise, people might expect to take over the manager's position right away, or might wonder why they aren't being promoted to the main functions within the department.

People have to realize it's still a real world, and certain jobs still have to be done. The bad jobs don't go away.

Hank Salin

"His career could suffer"

I think the person whose career can suffer most in a QWL program is the first-line supervisor, the type of person who has risen from the ranks because of his specific knowledge of a particular operation.

Under some QWL programs, the first-line supervisor will essentially

work himself out of a job. That can't help but concern people. The older supervisors must be wondering: "What's in it for me?"

The staff specialist is in a similar position. His career could suffer if he didn't become involved in a QWL program, if he stayed in a very specialized function. His career path would be limited, because the people in line for management jobs would need a broader experience in handling people.

Ron Dakers

"We learned the hard way"

When you go from conventional to Quality of Working Life management, it's very hard to determine what you are doing wrong – because you're not sure what is required. Even today, it's still pretty hard to determine. We learned once we were in the project. We learned the hard way.

But once you're involved, you're involved.

Real Sarrazin

Looking forward Looking backward

"You don't want to go back"

As a team manager, I feel like I've been in training for three years and I've got 27 teachers out there training me. Everybody's in the same boat. We all started green together. So the learning goes both ways.

I like developing the human relations end of my job. I never did enjoy the "go get 'em" type of supervision.

In the traditional warehouse, you are strictly the front-line enforcer, rather than a consultant or trainer. You're in charge of policing, disciplining, making sure that everything is followed verbatim.

As a team manager, I would almost put myself into a personnel management position, rather than a supervisory position. I provide mainly guidelines, reference points, training - that sort of thing. You need the specific technical skills and you need to know how to pass these skills on. It's more of a consulting and guidance role.

People still check with me. You can give people all the decision making they want; it's still human nature to want some reassurance that your decision is right.

You need to be a facilitator, helping people when they need it. You don't give directives and tell people what to do. I had to learn to be consultative in lots of subtle ways, so that people could learn from within themselves to do things better.

I sure enjoy it, and that's the bottom line. Once you've been there, you don't want to go back to anything else.

Hank Salin

"Managing people rather than events"

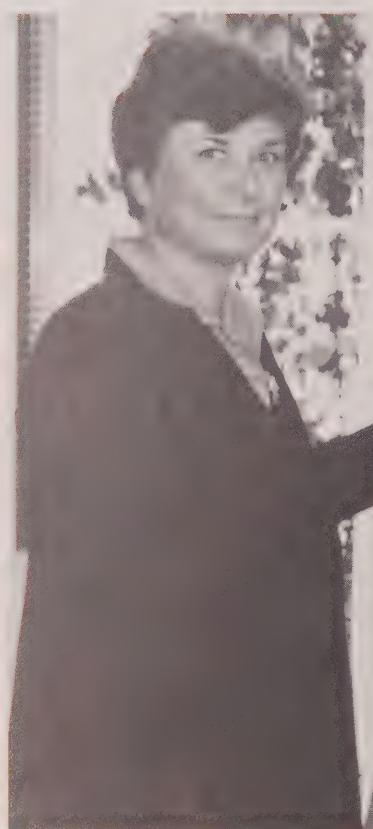
I think that Canada is suffering from a lack of managers, not a lack of specialists. Most Canadians will work hard. It's up to management to try and remove all the impediments that prevent people from doing a good job.

That requires new skills. We will have to rely more on the skills of managing people rather than events. Management should mean delegating work to others, allowing them to do that work, rather than being so closely involved in that work.

And that's always difficult. As you give more responsibility to others, you lose a certain amount of authority from the responsibility that you carried. I happen to believe that's the role of a manager - to work yourself out of a particular function. We have to look for different functions, perhaps for broader concepts that let people work up to their maximum abilities.

We have to involve more people in the solution of problems. You give up some authority when you do that, but you get the benefit of seeing other people doing the job you once did.

Ron Dakers



Nina Willcocks

"Everyone is looking to see what the boss wants"

There's nothing new about QWL values. But traditional management just tends to spend less time maintaining these values, because everyone is looking to see what the boss wants.

A lot of management trainee courses stress success stories based on: "Don't interpret your job your way. Interpret it the way your boss does. Remember who does your performance appraisal."

I feel that the people who know my performance best are the people who work for me. But they don't have any input into promotion or merit review. Our evaluation systems have to become more scientific.

Nina Wilcox

"Gee, this plant is ours"

No matter what you do, when people are first given a chance to speak up, there are a lot of bitches that come out. At the start, there were a lot of "bitch-list" things that came up at meetings. This goes on until you get to things like: what kind of pencils everyone wants. Finally, everyone just exhausts himself and realizes that it's a waste of time.

People had never been given the opportunity to make decisions before. So they couldn't do anything until they realized: "Gee, this is our plant, and we can do whatever we want to make the plant more efficient and better for ourselves."

After a year or so, some of the excitement is gone. Sometimes QWL becomes too good and a lot of challenges are lost. Things run too smoothly - no more fires to run to.

The last big thing I did was set up a pingpong tournament. We'll have to find some other avenues for promotion and growth.

The ultimate would be that the workers become completely autonomous and management is no longer required. The key is handed over to the people and they can come in, open the door, and that's it. That's the ultimate of QWL.

Hank Salin

In pursuit of excellence



Television drama demands precision and perfection under heavy deadline pressures. It also requires initiative, teamwork and commitment behind the scenes. These are the values that produce excellence in the business world, say Peters and Waterman, authors of *In Search of Excellence*.

by Don de Guerre

American managerial know-how isn't exactly a hot export item these days, but Thomas Peters and Robert Waterman have produced a management self-help book based on the proposition that home-grown excellence offers plenty of examples for improvement. North Americans don't need to look to Japan, *In Search of Excellence* (New York: Harper and Row, 1983) insists. They should look for the features that distinguish excellence right here.

Hailed by management as a landmark study, the book promotes eight organizational changes, many of which dovetail with a QWL vision of effective organization.

According to Peters and Waterman, excellent companies are *driven by humane values* rather than by the impersonal logic of technology and efficiency. Likewise, QWL organiza-

tions recognize themselves as a mini-society and establish human values as a touchstone of internal social policy. At Shell Canada's petrochemical plant in Sarnia, for example, organization members commonly refer to the organizational philosophy in carrying out their day-by-day affairs.

Excellent companies, Peters and Waterman tell us, *achieve productivity through people*. Employees are treated with dignity and regarded as partners. In QWL organizations as well, self-maintaining work teams accept responsibility for output while management accepts responsibility to see that these teams have adequate skills and resources to perform effectively.

Autonomy and entrepreneurship are encouraged in excellent companies. Decisions are pushed down the hierarchy in an almost radical decentralization. Experimentation and risk are

encouraged. Failure is treated as a learning opportunity. Likewise QWL organizations and workteams constantly seek new and better ways to do things, rather than simply "do as they're told."

Excellent companies, in their view, are *simultaneously loose and tight*. Tight on values. Loose on everything else. They combine discipline and freedom – control plus flexibility, innovation, informality. They have long-term focus, but seldom a long-range plan.

Likewise QWL organizations build controls directly into the work process. Many quality control and maintenance functions are done by workteams and adjustments are made when necessary. Informality is designed into the structure jointly with the tight quality control needs of the technology.

Excellent companies have a *simple form and lean staff*. They tend to break larger divisions into smaller units with relative autonomy and re-organize frequently. Corporate headquarters of Emerson Electric, for instance, has fewer than 100 employees for a company of 54,000.

The same holds for QWL projects. Since workteams are responsible for output and the social system is self-maintaining through committee and task force structures, the corporation no longer needs a huge mid-management staff in charge of co-ordination.

Excellent companies *manage ambiguity and paradox*. They make a systematic attempt to fight the mechanistic rigidity of bureaucracy. They have learned there are economies in scaling down, and efficiencies in informal structure. "It's not just small and beautiful, it's hundreds of very tiny units, a tiny fraction of the technically attainable size. It's not just customer contact, but a vast array of services . . ." the authors tell us.

QWL organizations, designed for workteams accomplishing whole tasks linked through a network of social system committees, also create organizations as described by Peters and Waterman. However, structural reorganization is often necessary before efficiencies can be realized.

Excellent companies have a *bias for action*. They initiate small experiments, assess and fine-tune. Likewise, QWL organizations have support systems designed to assist team action within the primary production process. There are no "jobs" in the strict sense; teams perform tasks. And team members develop their own ways to support their needs for achievement and growth.

Excellent companies are zealously *committed to the customer*. To uphold their reputation for integrity, they will typically go to great lengths to correct a problem. In QWL organizations, the customer can often deal directly with the workteam responsible for the product or service. In this way, everyone in the organization is aware of customer needs. Problems are solved through problem-solving committees, so that the customer is assured increasing value.

Peters and Waterman have contributed to an emerging North American vision of effective organization that parallels a QWL vision.

However, there are some crucial differences. The book implies that a change in management vision will solve organizational problems. By contrast, the QWL vision insists that since organizations are man-made systems with multiple interests of varied stakeholders, participatory structural redesign is the only long-term solution.

Without workforce participation, such change can sound like manipulation or clichés about positive thinking. It is possible and hopeful, however, that the vision Peters and Waterman present may pave the way for a QWL kind of organization metamorphosis across North America.

CMA turns to "people power"

by Emma Vivian

"To compete in the global village, the power of the people is necessary."

Strong words, one might think, coming from Roy Phillips, president of the Canadian Manufacturer's Association (CMA). But the CMA itself is the first to recognize the "people power" idea as a major break with tradition.

Cutthroat international competition and the trauma of the recession have forced Canadian business leaders to take a hard look at how they run their companies, and they've found a lot that needs changing. The result of the soul searching is a new thrust towards boosting employee participation and commitment as a key to increased productivity.

In the fall of 1982, the CMA published *Competing in the Global Village: Self Help is the Best Help*. Self-criticism, the authors must have concluded, is the best criticism. Rather than blame governments and unions for the ills of the economy, the *Global Village* concentrated on problems in management's own house.

The study reported Canada's ranking on an international competitiveness scoreboard of 22 countries. Although this country stood third in terms of human resources and fifth in overall performance, other ratings suggested profound problems. Canada rated tenth in managerial talent, thirteenth in employee motivation, and a dismal twentieth in the willingness of workers to accept new technology.

The statistics carried a weighty message to managers. For fundamental productivity improvements to be made, managers would have to change their methods of dealing with people. The CMA said it was up to managers to take the first steps to set employee relations on a new footing.

The paper concluded with a clarion call for a "major re-orientation in management thinking." The CMA challenged its members to restructure decision making. "Decisions should be made closest to the action being undertaken because productivity problems can often be assessed best by the employees involved."

The paper also called on managers to adapt to new realities. "Authoritarian management is not in tune with the values of today's workforce. The new manager must be more of a facilitator, tapping workers' skills, and



Something is missing "from the point of view of bloody good management," claims CMA vice-president, Laurent Thibault.

less of a task master overseeing the job to be done."

Laurent Thibeault, executive vice-president of the CMA, admits Canadian managers have been late in coming around to these ideas. The recognition of human resources as critical may sound trite, he says, "except when you look at what management has done in many cases. They've considered the organization of the plant, the technology, and the equipment. But they didn't pay enough attention to whether the workplace was meeting the full needs of employees."

Management may have lost track of certain important values, Thibeault admits. "If you think of people as a disembodied resource, no different from a robot or a ton of steel, then there's something missing. And not just from a moral point of view. Now managers are finding out that there's something missing from the point of view of bloody good management.

You're not getting your best out of what is your most valuable resource, because you're not thinking about people right."

That's why Roy Phillips calls for the power of the people. CMA research has found that companies which reject stifling supervision and allow people to participate creatively in the enterprise are the best performers.

And therein lies the most powerful pitch. Managers, like employees, need to be motivated to change, Thibeault argues. It won't work to try and sell quality of working life or employee participation programs with a strictly humanistic line. "If you don't establish a relationship between quality of working life or a better working environment and the fact that the enterprise will be more productive . . . then I think you're missing a big motivation factor for managers. Saying they should do it just because it's nice is not enough. QWL must be related to the fundamental economic objective."

The CMA has cautioned its members against quick fixes which may be little more than window-dressing. And it recognizes that workers may have some justification for caution. "We're not going to go from decades of authoritarian management to a new philosophy overnight. It's a



Managers considered "the plant, the technology and the equipment," says Thibeault. "But they didn't pay enough attention to whether the workplace was meeting the full needs of employees."

process," says Thibeault. "I think workers are right to enter it with their eyes open. That's what I'd do if I was an employee. I'd want to make darn sure that the employer wanted genuine participation."

The CMA hopes to get these ideas across to its members through its new "Action for Survival and Productivity" (ASAP) program. And according to Thibeault, there's been a positive and enthusiastic response so

far. Hundreds of companies have sent representatives to seminars on new management techniques.

"There's a tremendous ferment among our members," Thibeault concludes. "They're looking for new ideas, thinking that they can and should do things differently. Every company will find its own approach, but the basic principles are there."

Democratic learning comes of age

by Wayne Roberts

Enroute from the Toronto airport to a downtown hotel, Australian author Trevor Williams got caught in one of the Allen Expressway's infamous traffic jams. This put him and his cab driver in a proper frame of mind to discuss the role of experts in planning.

Before long, Williams' cabbie, who turned out to be something of a "roads scholar," was asking about the purpose of Williams' visit and the ideas in his new book on learning. Williams gave a quick explanation of his approach to democratic learning. The cabbie couldn't figure out what all the fuss was about. "Lots of people have known about that for a long time," he muttered, "You write a book on it, and people finally pay attention!"

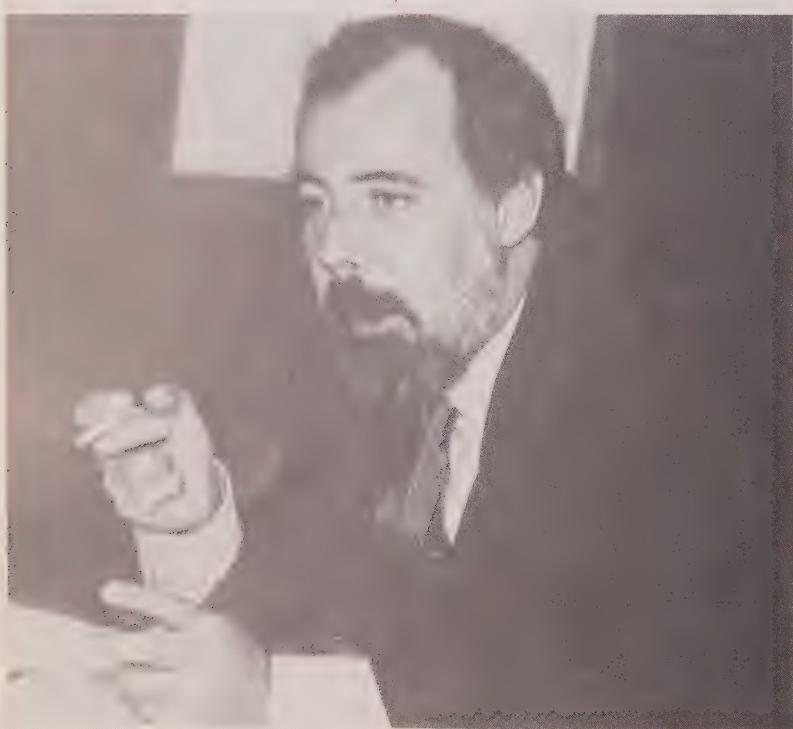
To Williams, this introduction to Toronto was not insulting, but "marvellous." He believes that the learn-

ing patterns necessary to guide the world through the turbulent 1980s must come from the actions of ordinary people grappling with real problems.

His book challenges traditional approaches to learning through lectures, drills and exercises and traditional approaches to training through crash programs, packages and modules. In both cases, he argues, the learner is placed in a dependent situation, unable to control or search out the broader environment or purpose that must be acted on.

Williams' own approach, which might be described as "learn while you earn," comes out of his experiences as a teacher and consultant on several continents.

As a teacher, he tired of teaching about action learning in stale lectures



Ber-Mark Holzberg

Trevor Williams came from "down under" in Australia to give a seminar on "bottom up" learning in Toronto. The seminar was based on his book, *Learning to Manage our Futures, the Participative Redesign of Societies in Turbulent Transition* (Toronto: John Wiley and Sons, 1982).

that required passive memorization of pre-digested material. As a consultant, he grew restless of telling managers how to fix whatever was wrong in their organization. He preferred helping them learn how to fix things themselves.

In Williams' opinion, the time is ripe for a major shift in our assumptions about learning.

We live in an age of interdependence. In broad social terms, "there's not much use scrambling for first-class seats on the Titanic," he says. And with new office technology, he continues, organizations have to learn ways to share information horizontally before they drown in memos from on high.

Furthermore, Williams argues, we live in a fast-paced world full of surprises and potential disasters. The old ways can't meet these new challenges. "The amount of change, complexity and uncertainty in the environment now greatly exceeds what bureaucratic organizational structures can cope with," he writes.

Indeed, bureaucratic organization defeats effective organization, he argues. Elaborate information systems in bureaucracies, commonly known as "red tape," come from a "single loop" theory of learning. The loop doesn't tie anything together because some decide on the purposes of action, others learn their special task in isolation, and still others check to see if it's right.

Williams calls for a turn toward "double loop" learning, allowing work teams to decide on tasks, perform them, and evaluate them.

He's met resistance to this approach from Australian management trainees who want to be "taught management," rather than be "sucked into coming up with problems and solving them." But in Williams' view, that's exactly what our whole society needs to be "sucked into."

His hope is that a new approach to learning can transform education, management training, and the whole process of planning itself. "A learning society must be a learning democracy," he concludes, where "people are allowed to discover and act on their human potential for learning and active adaptation."



White elephant

Trevor Williams tells this story on the origins of the term "white elephant." Needless to say, it relates to action learning.

Alexander, the famous military leader of ancient Greece, preferred buckling on armor to buckling down with the books. But he just couldn't convince his tutor, Aristotle, that there were more important worlds to conquer than the world of ancient texts.

So, to get Aristotle off his back, Alexander brought his tutor—not an apple—but a white elephant. Too bad for Aristotle that he didn't remember his lines from the classics about the Trojan horse and fearing Greeks, even bearing gifts.

The story goes that Aristotle had to find a full time job just to pay for the white elephant's hay. But at least Alexander was free to pursue a career based on action learning.

Williams admits the possibility that this story may be something of a white lie. However, some ancient history specialists say it's true. And it's nice to think that "white elephant," a term that has come to symbolize items that are formally correct but ridiculous, came out of the conflict with formalistic methods of education.

Megatrends are transforming our lives as "baby boomers" enter "information revolution"

What do designer jeans, crunchy granola, space-shuttles and homebirths have in common with QWL?

According to best-selling author John Naisbitt, they're all signs of *Megatrends* that will transform our inner and outer lives for the next decade. Each of the ten themes he analyzes points in a direction where QWL concepts will emerge as important ideals and necessities during the years ahead.

We already live, he says, in an information society, which will rupture the patterns of industrial society as forcefully as industrialism once broke down the agrarian way of life.

Top-down organizations have not yet caught up with the breakthroughs in information technology, Naisbitt claims. So offices that were once flooded with memo's are now being swamped with microcomputer "information pollution." As a result, he charges, "we are drowning in information but starved for knowledge."

New communication technology will soon make different approaches the order of the day, Naisbitt believes.

"Brain-intensive" industries will replace capital-intensive ones. Generalists will be more valuable than specialists, and life-long learning will replace short-term formal schooling.

Above all, he insists, informational equality will break down the monopoly over knowledge. "The computer will smash the pyramid," he writes.

Knowledge revolution

"As the common people regain confidence in their ability to know the world, and gain the opportunities for knowing that, . . . we can expect a 'knowledge revolution' that will rather overshadow the information revolution of the microprocessor."

F. Emery
"New Perspectives on the World of Work"

"We created the hierarchical, pyramidal, managerial system because we needed to keep track of people," but "with the computer to keep track, we can restructure our institutions horizontally."

Naisbitt also notes a major trend away from reliance on institutions and elected representatives in far-away power centres. Self-reliance and local initiative are coming to the fore, and creating a demand for participative democracy and local control. In his opinion, this decentralization will be a "great facilitator of social change." It will allow direct democracy to flourish.

Since the 1960's, Naisbitt argues, "a world swirling with change forced its way to the workplace door and suddenly burst through." The "baby-boomers" who now form the majority of the workforce are demanding changes. They are searching out "networks" rather than hierarchies, and are finding that "rewards come by empowering others, not by climbing over them." A new managerial style is taking shape, he maintains, and "the new leader is a facilitator, not an order-giver."

The 1980's will be crucial, Naisbitt believes, because economic and cultural trends will start to meet. In his opinion, "change occurs when there is a confluence of both changing values and economic necessity, not before."

Although Naisbitt shows little awareness of the profound economic downturn that threatens to haunt us through the decade, he is profoundly aware of the instability we face. Indeed, he rejoices in the openness this will create. "Although the time between eras is uncertain, it is a great and yeasty time, filled with opportunity," he concludes. "My God, what a fantastic time to be alive!"

John Naisbitt
Megatrends, 10 new directions transforming our lives
(Warner, 1982)



Shea Hofmitz

Networks, newsletters and the QWL tradition

By Wayne Roberts

(Continued from page 16
of a series on historical aspects
of the QWL movement)

"I'd had more courage, I would have been a good spy," claims Mary Eden-Wilson. "I was always good at the double."

The QWL activist who never came from the cold is a major contributor to the "Clearinghouse" and literature-review section of *QWL Focus*, in her own way a substantial contributor to the QWL movement. Not a stage theoretician or consultant, but as she puts it, a "back-room" organizer who took responsibility for the less glamorous features of the movement.

Mary Wilson served her apprenticeship in the course of a checkered career as actress, journalist, pioneer TV producer and world traveller. Before her commitment to QWL, she was a writer and researcher of wide scope, with books on natural science, travel and philosophy to her credit. *Philosophy of the Bed*; analyzing the intellectual underpinnings

of civilization's most practical piece of furniture, and *Tears of Ises*, describing her journey up the Nile to the well-springs of civilization's most extraordinary monuments, are two of the better known books she co-authored.

Her involvement with the QWL movement came about as a result of her marriage to Tommy Wilson, considered a rare genius and one of the founding members of the Tavistock Institute which lay so many of the foundations for QWL theory. When he died in 1978, she took over the editorship of the newsletter sponsored by the International Council on Quality of Working Life.

She brought to that task all of her qualities as a "networker" and researcher with international interests. The newsletter featured extracts from current journals and notes on recent and forthcoming events, the meat and potatoes of a fledgling movement in need of contacts, support and critical reinforcement.

She recalls important developments associated with the International

Council's newsletter. The newsletter introduced social scientists and engineers to one another, to help consummate the marriage of socio-technical design promoted by QWL.

Although funding problems kept the newsletter's existence precarious, it survived until the 1981 world conference of the International Council. That conference decided to dissolve the International Council, and with it, the newsletter.

In the absence of an appropriate body to adopt this child of an international movement, the Ontario Quality of Working Life Centre has taken over this role. "Quality of working life cannot survive in isolation," insists Ontario QWL executive director Hans van Beinum. "We can only survive as part of the fabric created by an international network of collaboration, information and innovation."

That commitment accounts for much of what you see in *QWL Focus*. It also accounts for the continued contributions of Mary Eden-Wilson.

CENTRE

Four new members join Advisory Committee

The Advisory Committee to the Quality of Working Life Centre in Ontario has recently been joined by four new members, each representing important segments of the business and union community.

Since February 1983, the following union leaders and business executives have agreed to serve on the Committee:

Alton Cartwright, Chairman of the Board and Chief Executive Officer, Canadian General Electric

Peter Nixon, President and Chief Operating Engineer, Algoma Steel Corporation

Dave Patterson, Director, District 6, United Steelworkers of America

Fred Pomeroy, President, Communications Workers of Canada

They will be joining the founding members of the Committee:

William Dimma, President A.E. LePage

Robert Hurlbut, President General Foods Limited

William Macdonald, Q.C. McMillan Binch

Terrence Mactaggart, President Niagara Institute

Sean O'Flynn, President Ontario Public Service Employees Union

Clifford Pilkey, President Ontario Federation of Labour

Robert White, Canadian Director United Auto Workers

Tim Armstrong, Q.C. Deputy Minister of Labour

Two founding members of the Committee have resigned after years of invaluable service:

Ralph Barford, President Valleydene Corporation

Stewart Cooke, former Director, District 6, United Steelworkers of America

The Advisory Committee was established in 1977 to oversee development of the Centre. It reports directly to Cabinet and guarantees the Centre's professional independence. The Committee links the Centre to major union and business developments in the province and reinforces its commitment to union-management participation in QWL projects.

Windsor conference

Local union-management groups from the automotive industry designed one of the first-ever community based seminars on QWL in Canada this May. Co-sponsored by the Ontario QWL Centre and the University of Windsor, the event was primarily resourced and designed by participants actively involved in QWL approaches at their own place of work.

Over 150 people from the auto industry in the Windsor/Detroit area, attended the day-long seminar. The event featured exchange of experiences and opinions from active participants in QWL projects.

Following a presentation by Dr. Hans van Beinum, Executive Director of the Centre, on the basics of QWL, local union and management members made presentations on issues ranging from the history of their collaborative efforts through to the implementation of their joint program at the shop-floor level.

In his letter of thanks to the conference organizers, van Beinum expressed his excitement over the possible new stage of growth for QWL suggested by the conference. The field was at last talking to the field. "The real knowledge about Quality of Working Life has to be found in the actual world of work."

Fall/winter education program Ontario QWL Centre

September 21, Toronto

November 24, Ottawa

Theory and Practise of QWL

These introductory seminars are joint union-management events. Each seminar contains a joint union-management presentation of an active QWL project.

September 27-29, Niagara-on-the-Lake

The What and How of QWL

Organizations are encouraged to attend this practise oriented seminar in union-management teams. This seminar focusses on how to get a joint union-management QWL process started.

October 18-20, Niagara-on-the-Lake

Sustaining and Diffusing QWL

This practise oriented seminar is designed for unionists and managers who are actively engaged in a QWL process.

January 17-18, Toronto

QWL in the Design of New Organizations

This seminar focusses on how new organizations, or "greenfields," can be designed for greater worker participation and increased organizational effectiveness.

February 8-9, Toronto

Changing Roles within QWL

This seminar examines what has been learned about the roles of supervisors, stewards, staff specialists, etc., in QWL settings.

Brochures outlining the above events in detail are available from the Centre. For further information please contact: Jacquie Mansell at the Ontario QWL Centre (416) 965-5958. Enrolment in the seminars is limited.

In the production of this issue of FOCUS, we benefited from the assistance of Joan Coxhead, a Centennial College communications student who fulfilled her co-operative placement at the Centre.

Ms. Coxhead helped with research and writing, and took major responsibility for all the preparatory design work for the issue.

QWL agencies take stock of new environment

new trends

- Anti-Union Environmental Services approach
- Efforts to organize Services approach
- Internal pressure for QWL and for relevance to younger workers among present membership

Implications for our Centres/Centre

- trying to help Unions understand their potential to help them
- shift from alternative organizations to direct democracy (see Warwick, MEATKINS)

MAJOR CORPORATIONS INVOLVED IN TOTAL SYSTEM CHANGE.

- INCREASED KNOWLEDGE ABOUT DOING REDESIGNS
- DECREASED FUNDING FOR CENTERS/PRESSES FOR COMMERCIALIZATION
- UNION DEMANDS FOR QWL
- MNC's

- impending collapse of debtor nations and creditor banks

- world-wide recession => new social contract between capital/labor

- QWL productivity tied to supported by unions to provide tax base for Social welfare network

- QWL as total systems change by growing numbers of large corporations

by Wayne Roberts

You can't have a search conference on Quality of Working Life without flipcharts. Flipcharts are essential at research conferences because they allow everyone to participate equally on the basis of publicly available information and ideas. So the pens were flying within minutes when representatives of leading North American QWL centres met at Niagara-on-the-Lake this spring.

Organizer of the conference, Hans van den Brum, called the event a "flocking" phenomenon. "It derives from the same instinct that birds demonstrate," the executive director of the Ontario QWL Centre explained. "The need to use collective force to sense the environment, assess the balance between population and resources, and get a sense of direction."

More specifically, the seminar tried to pool resources from centres in Nova Scotia, Ontario, Quebec, Michigan, Massachusetts, New York, Pennsylvania, Washington, D.C., and Texas, to develop institutional strategies to meet the challenges of the 1980s.

Although most of the agencies were having difficulty surviving solely as QWL Centres, almost all participants in the conference felt that the motion toward QWL had reached

"critical mass," that we are on the edge of a breakthrough. The drive for "economic renewal" across North America is creating a speedway for managerial innovation based on employee involvement. "The depression is forcing everyone to examine their basic assumptions," claimed Basil Whiting of the Michigan QWL Centre. "Increased productivity and improved quality of working life are two sides of the same coin," insisted Doug White of the American Productivity Centre.

Support for QWL concepts is growing in breadth and depth, most U.S. participants noted. Experiments are no longer isolated in the corners of particular factories. "Corporate interest in total system change has doubled over the past four years," claimed Michael Brower of the Northeast Labor Management Center. Hard-pressed communities are turning to direct citizen participation in industrial redevelopment plans, reported James McDonnell of the Buffalo-Erie County Labor-Management Council.

New social contract

Fred Emery, a world-recognized QWL authority now working with the Busch Center at the University of Pennsylvania, argued that the openings for QWL were part of a "new social contract" for our era. The old

social contract, he said, came out of the turmoil of depression and war during the 1930s and 1940s. It was a defensive attempt to protect people from abuses of the assembly-line phase industrialism through protective legislation and union organization. The new social contract will correspond to qualitative changes that have taken place since the 1950s.

Emery's comments elaborated on a thesis he developed in the December, 1982 issue of *Human Relations*. "All of the contracts between people, their neighbours, their masters and their gods" are likely to be called into question by the prolonged recession, he stated. New forms of business organization will develop. Traditional approaches to the management of work "will have about the same relevance to economic recovery as the V-8 car engine," he maintained.

As well, Emery argued, automated equipment will make the discipline of the assembly line obsolete. Growth no longer comes from "screwing out a higher proportion of labor time from the working day." New equipment demands continuous learning, making the human energy crisis more critical than the fuel crisis. Emery speculated that "the knowledge revolution may be in the

"Traditional work arrangements will have about the same relevance to economic recovery as the V-8 car engine."

- INCREASED OPENNESS FOR QWL VALUES
- INCREASED TENSION BETWEEN GROUPS
- INTERGENERATIONAL CONFLICT DUE TO AGING OF POPULATION
- BABY BOOM IN WORKFORCE
- INCREASED PARTICIPATION OF WOMEN IN LABOR FORCE
- INCREASE IN NUMBER OF SINGLE-PARENT HOUSEHOLDS

- New social contract
 - Unions
 - BBs. - post WW2
 baby boom generation

IMPLICATIONS FOR OUR CENTRES:

- securing demand for us to exist in productivity improvement in both public & private sectors

• NEG

- computer RT WING ideal.
- GVT
- Manufacturing/resource ind.
- + Low wage/informal economy
- + "Me" self-reliance
- Lack of foreign direct investment
- Union strength
- NLRB limits

• P2B

- computer ? Self-help/manage ideal.
- Gvt ↑ (?) + pos. reinforcement
- + competence + large systems into one
- + ecology/systems thinking
- + women role
- expansion
- mid-size skills
- participation, item + community structures

release of human capabilities rather than in micro-processors, optic fibres and satellites."

In Emery's opinion, "if there was a 50-50 chance of me getting married next year, I'd start saving right now." QWL agencies should do likewise, he suggested, and prepare for some qualitatively new commitments.

Handling the boom

The expanding interest in QWL ideas could create some problems, several of the participants felt. There was a sense of unease that QWL was "coming through the back door," subordinate to various strategies to increase productivity or salvage dy-

ing industries. "People come to us because they're scared," said Basil Whiting of the Michigan Quality of Work Life Council, concerned that humanization of work was not central to new organizational strategies.

Although there was concern that QWL might be called on to achieve goals it is not designed for, participants were basically optimistic about the increase in welcome mats at company headquarters. "Once the door to employee involvement is opened," remarked Bob Ahern of the Buffalo-Erie County Labour-Management Council, "it can't be closed."

Are we ready?

Conference participants also had some misgivings about the "state of the art" in QWL and our ability to cope with a quantum growth in demand for consulting services. "We don't even have the cookbooks ready," said Bob Ahern. Hans van Beinum of the Ontario QWL Centre was less reserved. "The competency is already out there in the field," he said, "but it's latent. We have to learn to be midwives rather than parents." van Beinum's faith in "the latent competence in the field" is based on his experience in South Africa during the 1950s. As a researcher and organizer charged with

improving housing conditions in the black ghettos, van Beinum learned to mobilize a community with few freedoms and little formal education. He turned to the groups that were already strategically located in the community – youth gangs, nurses, teachers and shebeen queens (boot-leggers) – worked with them and provided them with the necessary skills.

Likewise, in Norway during the 1960s, social scientists boycotted industrial democracy experiments because they weren't "scientifically rigorous." So the government turned to engineers, and provided them with the essential social science skills. Fred Emery suggested that the same process could take place in North America through community colleges, which are already equipped for large-scale adult education.

The conference was not designed to establish formal conclusions or structures. It was designed as a first step in the development of weaving a network among the key centres promoting QWL ideals. "Dealing with such a difficult process, we need all the friends we can get," van Beinum concluded. "I hope this conference laid a basis for a continuing relationship."



Fred Emery

Picking up speed

Michael J. Brower

U.S. businesses and government organizations are increasingly adopting Quality Circles, Employee Involvement, QWL, Work Redesign, Advanced Systems Design and a host of related processes to improve quality, productivity, and the quality of people's experience at work. Following are my own views on these developments and on some lessons they suggest.

Take Quality Circles first. A Circle is usually a group of eight to fifteen workers from the same work area who meet regularly with their supervisor. The Circle identifies problems and proposes solutions to higher levels of management.

The number of U.S. companies with Quality Circles underway is in the thousands. It is the simplest approach to employee involvement, and perhaps for that reason, the most popular.

But the simplicity of Quality Circles is misleading, and the ease of introduction can be more apparent than real. Their success is limited, unless the complexities of an organization are recognized and unless the Circles are supported by adequate system-changing activities.

For instance, in early Circle start-ups, top management typically instructed middle managers to tell first-line supervisors to initiate Circles. Management was not involved, except at occasional gatherings where they received formal presentations from Circle groups. In most organizations where Circles have survived, management has become more involved, through development, planning and problem-solving workshops, or through the formation of their own Quality Circles.

In many unionized organizations, management has failed to involve the union as an equal partner on QC Steering Committees. I have seen cases where, as a result, by-passed unions were able to halt all circle activity.

In addition, early Circle organizers restricted attention to problems directly related to productivity and quality. This narrow focus does not maintain worker interest. Increasingly, I find Circle facilitators drawing the lesson, and orienting to the broader concerns handled in QWL programs.

Broader approaches

Apart from Quality Circles, many companies are involving themselves in processes such as Quality of Working Life (QWL), Employee Involvement (EI), and Labour-Management Participation Teams (LMPT). These approaches are best known at, respectively, General Motors, Ford, and the big steel companies.

Like Quality Circles, these approaches emphasize formation of shop-floor problem-solving teams. Unlike traditional Quality Circles, they emphasize joint union-management involvement from the outset. These approaches also encourage Circle members to choose problems they want to work on. Unlike traditional Circles which concentrate their effort on management presentations, QWL and EI teams try to solve problems themselves and seek management support only as needed. Also, in QWL and EI processes, it is not unusual to find Circles led jointly by supervisory and hourly employees.

A third approach that is also spreading – although not rapidly enough – is increased involvement of middle managers and supervisors in problem-solving activities of their own. As yet, this approach has no formal title. In some cases, it extends the principles of participative management. In others, it builds on QC, EI or QWL programs.

Involving management

The treatment of middle managers and supervisors is one of the most significant factors determining success or failure of these changes. It is worth some elaboration. Except in greenfield sites where little or no supervision is planned, it is highly risky to leave supervisors out of team meetings. Sometimes this is done on the grounds that "the workers will

feel freer and be more outspoken in his absence." The costs of leaving supervisors out in the cold are much greater. First, supervisors will imagine (probably correctly) that "they're talking about me in there". Second, they'll lose status as leaders. Third, their input into the definition of problems and solutions will be missed. Finally, they will miss out on the opportunity of individual and team learning.

Some companies are beginning to recognize the vital importance of developing new orientations toward supervisors. Over and over again, I have heard supervisors complain: "Is this program only for hourly? What's in it for me? How can I help my team implement good suggestions if my boss won't listen to me?" I hear this all the time: "This company is hypocritical. They want us to be good listeners, to be open, to develop creative team work, but they still treat us in the same old – opposite – way!"

Creating teams of supervisors and involving them in planning and problem-solving activities is increasingly recognized as a critical element of successful change.

Total system change

More fundamental efforts to actually redesign workplaces are also gaining ground. This approach is based on clear statements of philosophy and principles, cohesive work teams with growing responsibility, greatly reduced supervision, and redesigned pay and promotion systems in accord with the new design. Meade Paper, General Foods, Alcan, and Shell Oil were early pioneers in this approach and now FMC Corporation and General Motors are among the dozens applying it to new plants.

A parallel category of change, pioneered by Charles Krone and his associates, first at Procter and Gamble and now utilized by a growing number of major U.S. and European companies, goes under a variety of names: "open systems planning," "technical systems," and "strategic thinking and leadership training." This approach also emphasizes design of systems based on clear beliefs, principles and concepts and development of strong employee teams.

Unlike the other approaches I've encountered, this one also stresses improving quality of thinking and thinking capability at all levels. The results are major increases in effectiveness initially and continuing over time through the diffusion of good thinking, motivation and creative leadership throughout the organization.

A final indicator is worth mentioning here. From what I've seen over the last few months, it almost seems that every top manager in the country is reading Peters' and Waterman's *In Search of Excellence*. The book describes eight principles that characterize high-performing companies.

Several of these principles are harmonious with QWL principles: productivity through people, autonomy and entrepreneurship, simple form, lean staff, and central insistence on key values, plus lots of decentralization. I don't think these guidelines are sufficient by themselves to achieve QWL goals. But they are starting thousands more managers to think in terms that are compatible with QWL.

What does all this add up to? At the base, there is an explosion of the most elementary level of QWL - Quality Circles. Many Circle programs are dying but others are being upgraded along QWL lines. QWL and EI processes are expanding in their own right. QWL and EI consultants are gaining in sophistication and learning to work with all employees, including managers and with unions. The number of companies engaged in some form of major systems change is also on the rise.

All told, we are still a minority movement, but we are picking up speed, breadth and depth.

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EUROPEAN REPORT

Circular debate

by David Jenkins

Though the boom in quality circles is perhaps less marked in Europe than in the U.S., it has been steadily gathering steam over the past two or three years, and by now has become a topic of active discussion among managers.

As in the U.S., quality circles are seen in Europe as a part of QWL activities, and are often compared with the concept of semi-autonomous groups, developed in the U.K. and Norway, as another mechanism of generating worker participation. Some Japanese find this faintly puzzling. Professor Manabu Mine, a leading Japanese industrial relations authority who recently spent some time in Europe studying QWL experiments, patiently explained to Europeans that, in his view, the two activities were fundamentally different: the quality circles being entirely oriented to company objectives, and QWL more unilaterally directed to-

ward the satisfaction of employee needs.

However that may be, knowledge about quality circles is being spread through vigorous discussion in the press, seminars, and quality circle associations organized in the U.K., Germany, Sweden, Denmark and other countries.

Encourage teamwork

A typical attitude toward quality circles is shown in the paper recently published by the Work Research Unit in the U.K. on this subject¹. Noting that the basic idea of the quality circle is teamwork, almost identical in spirit to "employee involvement" (an expression which, in the U.K., has largely replaced "participation," which is now shunned as being too political), a phenomenon favored by virtually everyone in management, the government, and the unions, the paper states that product quality is an ideal area around which to mount a team effort: "It is very difficult to be against improving quality, so this is an obvious matter for joint activity. Anyone arguing against such a notion can be shown to be behaving perversely. It ought logically, therefore, to be easier to start and sustain such joint activity here than, say, in the matter of profitability or productivity."



Can quality circles succeed without major reorganization?

The paper says that quality circles have been put into operation by a number of British companies, and "have made a significant impact by encouraging team effort." But the paper warns that quality circles may be worthless in contexts where "relationships at work are poor in other respects," and that they should definitely not be used without a willingness to discuss them thoroughly with all parties affected before they are put into operation.

At a recent conference in London, organized by the Work Research Unit and the National Economic Development Office (the joint government-management-union agency engaged in economic planning and industrial studies), a government spokesman averred that the quality circle principles were entirely within the spirit of new legislation, coming into effect this year, requiring all companies with more than 250 employees to state, in their annual reports, what their activities have been regarding "the introduction, maintenance or development of arrangements designed to involve employees."²

One speaker, Brian Bartlett of Bristol Polytechnic, stated that quality circles were designed to serve much the same purposes as activities classified under the QWL label: "What we are really trying to do is to get people to become managers at their own level within the organization."

A similar view was expressed by Dianne Moore, whose title is Quality of Working Life Facilitator at May & Baker, a chemical company. She emphasized that the quality circles, which at her firm are involved in job design and organizational changes as well as quality, were judged not only to have benefitted the company, but also to have improved the quality of working life of the employees.

Voluntary membership essential
The newness of the quality circle idea is shown by a survey in Germany last year, indicating that only some 50 companies had used quality circles for as long as two years³. Companies queried stressed that, in order for the idea to work, the question must be fully discussed beforehand with everyone involved, and that membership in the circles must be voluntary. The circles were given

a positive rating, but companies felt they could benefit from an exchange of information with other firms using the concept.

Perhaps the circles are best used in subsidiaries of Japanese firms. In the German subsidiary of the Japanese company Pental, quality circles pick their own subjects to examine, and carry out highly sophisticated studies in such critical areas as delivery delays, customer complaints, and inventory management⁴. The results are said to be extremely valuable to the company.

In Sweden, the notion of quality circles fits in well, not only with the idea of participation that has long been current in that country, but also with legislation based on those ideas. Last year, an employer-union "development agreement" added some refinements to the 1976 Codetermination Act, particularly in getting both employers and employees to put a high priority on productivity⁵. Christian Berg, a consultant specializing in quality circles, says: "Quality circles are, most importantly, significant in stimulating the commitment of employees in day-to-day problems. In this way, there is an increase in the motivation to do a quality job. Further, it is a question of regaining the pleasure in work and professional pride that have been slipping away. The human being has gotten lost in the onward march of technology."

One of the companies where quality circles has been introduced is Ifö Sanitar AB, maker of plumbing equipment. Among the improvements introduced by the circles, noted by the company: lower losses from damage in transportation, less noise from machines, more effective product inspection and safer materials handling.

Karl Eric Jeppson, plant manager at the company's unit at Mörrum, says: "Attitudes toward the work have become more positive and understanding of problems greater. There is now a continuing dialogue between operators and supervisors. For us, quality circles do not deal primarily with quality, but they constitute an excellent instrument for enhancing the involvement of employees, and, over the long term, increasing productivity. I emphasize the long term, because it takes some time to get the

circles integrated into company operations."

Corporate structure must change

Quality circles can also have their negative sides, however, as is made clear in recent studies made by Philips Lamp in the Netherlands. The company's experience indicates that the circles can work only if the organization in question is prepared for them, usually meaning that far-reaching changes must be made in hierarchical structures, management styles, the division of tasks – in short, in the entire corporate culture.

Even in Japan, the Philips experts caution, it took many years of experimentation for the circles to achieve their present position of dominance. Moreover, the high level of motivation apparent among Japanese workers is not judged to stem from the quality circles – as is frequently believed in the West – but it is more likely the opposite. That is, the admirable Japanese motivation derives primarily from the special Japanese management style, which gives a high priority to the opinions of low-level workers, and it is this element that allows the circles to work.

Many unionists also look on the circles with some suspicion. European unionists point out that Japanese workers, who are not very active union members (the unionization rate is about 30 per cent), are organized into company unions, which are rare in Europe. The Japanese union federations play only a non-directive role relating to coordination and information.

Some European unionists therefore conclude, as has the FGTB, the Belgian Socialist union federation, that the quality circles are part of "a process designed to alienate workers from their union organizations"⁶. It is stated that, in Belgium, "we have available other appropriate means for improving relations within the company and achieving better working conditions."

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Germany engineers work humanization

The much-discussed German state-sponsored OWL operation, known as the "Humanization of Work Program," whose continued life had been uncertain pending results of the March parliamentary elections, is now slated to continue its existence, strengthened and with new goals, more precisely defined than previously.

The program, launched in 1974, doubtless includes the largest supply of state subsidies for work organization improvements in any country. Spending has risen rapidly, amounting to a total of some DM 650 million since the inception of the program, and running at slightly over DM 100 million (about \$50 million) during the past couple of years. But economic austerity had led to budget cutbacks and a slowdown in activities, and there was some question about the future course of events following the elections. The new government, under the conservative Christian Democrats, has recently reaffirmed its support for spending on work humanization, at roughly the same levels as previously, with future increases probable.

The program covers actions taken in areas of safety, health and ergonomics, as well as the psychological aspects of work organization. Since the beginning, some 1500 projects have been initiated, and most of them have been completed and reports published on the results.

Organizational "models" elusive

The work organization projects have differed from the usual pattern in other countries, in that a central instrument of improving jobs is seen to be engineering design. To be sure, the projects aim at satisfying workers' basic needs in their work within the same theoretical framework that is familiar elsewhere (an information document published in the early days of the program translated almost word for word the basic "human needs" texts developed by researchers at the Tavistock Institute of Human Relations in London). But the application of the principles into concrete organizational design has tended to be done, not by behavioral scientists, but by engineers.



Germany recognizes need to develop work humanization programs.

This was partly because one of the objectives fixed by the original architects of the program was to create organizational "models" that could be widely applied in a variety of companies (an objective that has proved more elusive than anticipated). Therefore, efforts were made to shape organizations with positive psychological characteristics "built in" rather than to adapt each organization to the wishes and needs of the people in it, which could best be done by behavioral scientists.

There were also other barriers to any process involving extensive consultation with employees. German unions discouraged (and still discourage) participation of employees as well as the establishment of autonomous groups, such practices being deemed to interfere with the functioning of the works councils (the elected employees' bodies whose duties are set out in great detail in legislation). No subsidized project can be initiated

without the written approval of the works council.

A third factor has been the lack of high-level social science expertise in Germany. Hans Pörschlegel, professor of work science at the Sozialakademie in Dortmund, in a paper¹ presented at the 1982 International Economics Association Congress in Tokyo, pointed out: "'Action research' as a concept and an approach is new to German sociologists, in contrast to many of their Anglo-American colleagues."

It is possible that some of the problems observed in the subsidized projects may have stemmed from difficulties in consulting employees and a consequent excessive reliance on theory. Fritz-Jürgen Kaldo², an official at the German Employers' Federation, notes: "It has often happened that workers, due to the greater demands generated by a richer job content, have been overburdened with

responsibility and thus have reacted with disappointment and dissatisfaction." In some projects, it has been necessary to put the process of creating "better" jobs into reverse, which might have been avoided had it been possible to consult with the employees to learn their opinions in advance.

Improved technical design works

Whatever else may be said about these influences, the fact is that German engineers have developed an impressive arsenal of technical design tricks – e.g., buffers, assembly line modifications, methods of grouping machines and work stations – that do improve the social and psychological aspects of work environments. By now, industrial engineers in many German companies take such considerations into account automatically when designing new production systems. For example, as Porschlegel says: "Attempts were undertaken to uncouple – technologically and organizationally – flow line and time-controlled work from . . . the workers." This liberation of workers from machine-pacing is virtually always constructive, and can be done, once the principles are mastered, in a variety of contexts. Undoubtedly the participation of workers would be helpful, but it might not be essential.

Gradually, the focus on discrete details and sub-systems has given way to a more sophisticated emphasis on larger systems encompassing a number of types of subsidiary problems. Porschlegel notes: "Over the years, experiments with job rotation, enlargement, enrichment and semi-autonomous groups were largely replaced by more complex approaches – an integration of technological concepts with differing forms of work organization gained ground. The funded German experiments in these fields cover a range of types probably beyond those in other Western countries."

Guidelines needed

In a memorandum, published in April, outlining the conditions under which the Humanization of Work Program is being continued², the Ministry of Technology notes some past defects and sets out some corrective guidelines which are intended to strengthen the program in the future and increase its usefulness. In some areas, more knowledge is

needed, especially in connection with the introduction of new technology in work organizations, the Ministry statement claims.

"With continuing progress in automation and the growth of information processing, methods of protecting against, and reducing, psychological stress are acquiring increasing importance. Work experts have not kept pace with these developments. It is still unclear what mental, emotional, sensory or social factors are involved in this stress; there are no generally accepted scientific standards on the causes of stress and on human reactions to pressures – and on how all these elements may be measured. This unsatisfactory situation should be improved, through greater efforts in basic research."

The memorandum not only emphasizes the problems, but also the opportunities, that are being created in office work with the rapid advance of office automation.

"The new technologies in offices and administrations offer opportunities to provide better job content to employees and at the same time to increase efficiency. However, there is also the danger that some forms of office automation may have effects that are negative for employers as well as employees – loss of flexibility, increasing vulnerability of complex organizations to disturbances, under-utilization of skills, and needless generation of stress due to poor job design. All areas of activity, including the public sector, are affected by office automation."

The memorandum urges that research projects should be undertaken in this area.

The memorandum recommends that care be taken in the future to avoid what are seen as defects in past projects. Thus more attention to economic efficiency is called for, but part of the efficiency criteria used in assessing the potential merits of projects will be "the contribution made to improving the situation of the human being at the workplace (especially with regard to stress)." Applications for subsidies that give insufficient consideration to this point will be granted a low priority.

Research costs shared

One long-running problem in the program has been the relations between the companies where projects are undertaken and the researchers who have been assigned to carry out studies of the changes taking place. There has been very little meeting of the minds between managers and behavioral scientists, and very little understanding of each other's points of view.

Formerly, all costs of these specialists' work were paid by the government. The companies therefore did not feel particularly strongly impelled to pay any attention to the researchers, who were often regarded as no more than a necessary nuisance. This led to some highly conflictual situations, in some cases approaching open warfare, between managers and researchers, particularly in a very costly project involving the reorganization of engine assembly at Volkswagen. The researcher in question had his own ideas about how the project should be set up, which might have been ingenious and promising from a research point of view, but which was bitterly resisted by both managers and unions, and deemed by both these latter parties to be, for slightly different reasons, out of step with reality.

One adviser to the government in the program says this one incident had a heavy impact on the public perception of what was being done: "This conflict left some deep scars. You might try this type of project in some environments, but not in a company."

This researcher situation has been changed, with a requirement that companies pay half the cost of the researchers. The companies now pay closer attention to the selection and the methods of the researchers, and the researchers, of course, feel some responsibility to the companies. In the present memorandum, however, the government asks "whether, and to what extent," these researchers are needed in the projects.

One function they fulfill is still rated as important – the "transferability" of the knowledge gained in the projects. The government would still like to be able to develop generally applicable "models." This is there-

fore still an important goal in the projects.

Technical results accessible

The special administrative mechanism established to help do this, was the "Humanization of Working Life Centre" (now being absorbed into the Centre for Health and Safety Research) in Dortmund. Altogether, the tasks of diffusing the results of the projects, by this Centre or through other channels, have accounted for about 10 per cent of all the program's cost since it was begun in 1974. The special job of the Centre is to see to it that the results of the research, contained in thick, frequently unreadable reports, are made more accessible to the people who need it. This is done partly through preparation of printed material, condensing into attractive and readable form the technical results of the full research reports, setting forth guidelines for recommended practice in different areas.

The Centre also possesses a data bank from which information about humanization projects may be obtained. It also prepares training courses and seminars. It organizes seminars itself, and also makes available packaged seminar materials, so that training centres, companies, or other parties may use them.

Dr. Gisela Kiesau, head of the centre, explains that part of the guiding philosophy is that there is no point in spending money on research if the results are not widely available. "The discussion in Germany is about this. In a sense you could say we have enough research. The emphasis should be on using the results."

Organizational design

Reducing the essentials of subjects in the realm of health and safety is somewhat less complicated than in the area of organizational design. For this reason, and because organizational principles tend to be controversial, the Centre has thus far shunned this field. However, Dr. Kiesau says that an attack will soon be made on organizational design, probably with an effort to distill the important organizational principles from three reports on word processing and other types of office work.

Now that the political decision has been made to continue the Humanization of Work Program, the Employers' Federation has made known its views on the subject. The opinion is expressed⁴ that, in the past, projects focusing on health, safety and the physical work environment have been more useful than those in the

area of "work structuring" (which includes organizational design).

The Federation suggests to companies that they watch out for unwanted ancillary effects of humanization projects, particularly the willingness of unions to ask, in granting their co-operation in projects, a quid pro quo in the form of extra-contractual advantages that are quite unrelated to the projects.

The Federation has published a checklist of questions that companies should ask before entering into a subsidized project — many of the questions being connected with the orientation of the researchers who will be involved. The researchers are still regarded with much suspicion and distrust.

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Engineering design has been considered critical in German work humanization projects.

Recession spurs new interest in QWL

Specialists in the design of work organizations have noted some slackening of interest in this field as a result of the hard economic times of the past few years, but there has also been a converse phenomenon – the effect the recession has had in directing attention to the economic stimulation resulting from improvements in the quality of working life.

This is most obviously the case in intra-company activities – at Jaguar cars, for example, both sales and profits have risen appreciably in the past few years in great part due to the introduction of quality circles and other mechanisms for increasing employee participation in decision-making. Although such examples are well-known to QWL specialists, and their implications understood, non-specialists generally are unaware that methods of organizing work – which seem to involve highly technical questions – may have wider, macroeconomic significance.

Is this situation changing? With the stubborn persistence of the recession, the search for remedies has led observers to examine the potential economic impact of some well-known elements of QWL – in ways that may seem remote from the "classical" QWL approach, but that nevertheless indicate the fundamental value of improvements in the quality of working life, and emphasizing the same factors that have long been stressed by QWL experts.

It is in part due to the progress made in QWL over the past two decades or so that there is a readiness to accept unorthodox organizational ideas. The meaning of QWL has been gradually seeping into the public consciousness during this time, and the present discussion will almost surely have lasting effects on European economies.

Co-operatives thriving

Two familiar QWL elements in particular are receiving new scrutiny – the advantages of small operational units, and autonomy within the units of decision-making procedures.

One area where both these phenomena have a long and well-established history is in Mondragon, in the Basque country of Spain. Here, small

co-operative companies, loosely tied to the Caja Laboral Popular (a savings bank, also a co-operative), have been thriving for more than 25 years. From the original nucleus of a single 23-man shop, the Mondragon complex has grown to encompass about 90 industrial co-ops (plus about 50 more in agriculture, commerce, and education), employing nearly 20,000 persons and with a combined turnover of about \$700 million. The larger co-ops are further divided into smaller units. For example, Ularco, an appliance maker and the largest of the co-ops, has more than 6000 employees in nine sub-units.

The cluster of co-ops is structured somewhat like a conventional, decentralized conglomerate. In such a pattern, the bank would be roughly comparable to top management, supplying financial aid and advice to the units. There is also a common Research and Development unit which has, among other things, done advanced work in robotics, computer-aided design and manufacturing, and numerically controlled machine tools. There is also a common service that shifts workers from sectors in recession to those in expansion.

Mondragon, therefore, has something of the best of both worlds. As in a conglomerate, there are jointly managed functions that look out for the welfare of the group as a whole. But each co-op is owned and entirely managed by its workers, meaning that there is a degree of flexibility and speed of decision making that would be difficult to achieve in a larger group – not to speak of the consciousness of responsibility felt by all the members of relatively small, autonomous companies. One of the central advantages of a conglomerate is that, when one or more sectors are experiencing difficulties, the troubles may be offset by strength in healthier areas. Another is that all parts of the company benefit from centrally organized staff services. But a major drawback in conglomerates has always been the difficulty of producing quality decisions, quickly, pertaining to the small units. Mondragon has the advantages, without these drawbacks.

The strengths of Mondragon have been well displayed during the recession. Some of the co-ops have been

suffering, but none has folded because of the hard times – indeed, employment has risen by about 25 per cent over the past five years.

Another area that displays some of the Mondragon characteristics is in central Italy, in Umbria and Tuscany. A swarm of small companies primarily in textiles, has proliferated in recent years, without any central coordination, state planning or administrative bureaucracy. The companies are individually owned and managed, and make extensive use of small companies and individuals as subcontractors, giving the companies a high degree of agility and flexibility, valuable in meeting the fast-changing moods of the markets.

Though the system as a whole may seem anarchic and almost medieval in its disorganization, it has stimulated employment in areas where jobless rates have been rising steadily in recent years. The region's special strengths are the companies' operating autonomy and the entrepreneurs' willingness to take risks in order to retain that autonomy. (Part of this autonomy is expressed in a certain diffidence toward the tax authorities).

Flexibility

The idea of small production units is scarcely new, but its very considerable advantages had for many years been overshadowed by the supposed merits of "economies of scale." But it has only recently been recognized that things may have gotten turned backwards, with the result, as *The Financial Times* put it in a report on the rather primitive organization of Umbria, that "more advanced countries are trying to grope their way back."

The increasing public attention being paid to such organizational oddities has sent some government planners – who normally think in terms of heavy state involvement, large units and tight bureaucratic controls – back to their drawing boards. In Spain, the Mondragon co-ops were given a surprisingly high rating in a study commissioned by an employers' group. More importantly, the European Commission in Brussels released a report early this year entitled "The European Stagflation Disease," analyzing, and recommending cures for Europe's high and rising unemployment. Among its recommendations,

the report averred that the persistence of unemployment was due in part to rigid state controls and regulations that tend to discourage the creation of small businesses.

As a model worthy of emulation, the report highlights the flexibility and job-creating dynamism in "the small business sector of Central and Eastern Italy" – surely one of the rare occasions when firms noted for their relaxed attitudes toward the tax collector have been singled out for praise by a governmental, or quasi-governmental, agency. The Mondragon area qualifies for the same kind of evaluation.

Another recent study, prepared by the Committee on Economic and Monetary Affairs of the European Parliament, blames unemployment in good part on the lack of flexibility in the European economies, which acts to discourage the creation of small companies – the kind that are particularly aggressive in generating employment opportunities.

Smaller firms encouraged

Increasingly, the conviction is spreading that small is not only beautiful, but that it should be carefully nurtured. This is partly because of the numerous studies that have shown that small companies are more innovative than large companies. Innovations, of course, lead to jobs.

Governments are accordingly taking action. In the U.K. and France, new stock exchange arrangements have been devised to encourage trading in the shares of small companies, which in turn should help them raise new equity capital. Capital for new, high-risk enterprises has traditionally been scarce in Europe. Banks display a marked preference for large companies – but in recent years, large companies have been shedding, not creating, jobs.

Moreover, equity markets in Europe have traditionally been thin, and for all practical purposes beyond the reach of small firms. A rather typical illustration of the difficulties faced by would-be entrepreneurs in Europe is the tale of Volker Dolch, who established a company making electronic logic-testing equipment in 1976. But he says he could not have taken advantage of the opportunity to grow rapidly without raising new capital in

1978 – which he could only do in the U.S. His German company is now a subsidiary of his U.S. company in California's Silicon Valley. His U.S. money came from venture capital funds. He says: "Venture capital in the true sense of the word just does not exist in West Germany."

In France, encouragement to smaller firms is now being provided by a series of new measures, including a three-year holiday from taxes and social charges for new manufacturing companies, and financing assistance from a newly established pool of state money.

There is also rising interest in a number of European countries in the above-mentioned venture capital companies, which raise money from private investors and pass it along in the form of risk capital to small, promising companies. The record of such operations in America is spectacular, particularly in creating jobs.

The idea is now catching on in Europe. There is now a Venture Capital Liaison Office attached to the European Commission in Brussels, designed to supply information and encourage the establishment of such companies. Governments in several countries have been easing the way for these firms. In the Netherlands, for example, the state even guarantees, under certain conditions, part of the losses incurred by such firms.



David Jenkins is a prominent author specializing in the current European QWL scene.

French negotiate "right of expression"

The new French law guaranteeing workers a "right of expression" at the workplace (see the last issue of *QWL Focus*) is being put into practice gingerly, but with support from both employers and unions, according to preliminary reports. The details of applying the law have to be worked out in negotiations between employees and employers.

A compilation made by the Ministry of Labour shows that, based on the first 440 contracts signed during the first weeks of application of the law, the agreements usually cover an entire company rather than a single plant, that employee opinions are to be voiced in groups of a maximum of 25 persons, and discussions will be in meetings scheduled to last about an hour and a half every three months. One important characteristic of the agreements already signed is that they are seen to be experimental, with a stated intention that an evaluation will take place after a year. Participation in the groups is entirely voluntary. In some companies, the groups are organized only in a small number of departments, in order that some experience may be acquired with the law, even though the intention is that all workers are covered by the guaranteed right to expression. Most of the unions are urging their members to co-operate in the application of the new law, especially the socialist-oriented CFDT, whose theoretical doctrine includes a commitment to some vague form of worker management. One CFDT representative in a bank is quoted as saying, in that union's paper: "Despite all the obstacles, the CFDT considers that recognition of this right is an important advance, and that its application is a high priority." (*Syndicalisme, Le Monde*)



Saskatchewan unionists meet

The Co-operative College of Canada in Saskatoon hosted Saskatchewan's first-ever union workshop dealing with Quality of Working Life themes. Twenty representatives of 11 major unions in the province met on March 27-28 to discuss "Technological Change and Quality of Working Life."

Sean Kenney, director of democratic studies at the college, saw the workshop as an opportunity for the co-operative movement to chart new directions. "The co-op movement has traditionally been a pacesetter in terms of services to working people and farmers," he claimed. "We want to become leaders in our management practices too."

Although no QWL centre exists in Saskatchewan, spontaneous support for its central concepts appears widespread. Professor Kalburgi Srinivas, of the University of Saskatchewan at Regina, recently completed 200 in-depth interviews with local unionists. His survey indicated almost unanimous support for work settings that offered challenges and respect. Sixty

per cent expressed a desire for their unions to be more directly involved in workplace decisions.

Discussions at the conference centred on unionists' fears that QWL might compromise a union's independence in regard to grievances and other collective bargaining issues. Many participants also expressed doubts that local managers would ever introduce QWL initiatives.

Using a grant from Labour Canada, the college will be producing a 15 minute slide-tape show which highlights the frank exchange of opinions among workshop participants. The show, prepared by Wayne Roberts of the Ontario Quality of Working Life Centre, is designed to spark discussion in union locals and is available at cost from Co-operative College, 141 - 105th Street West, Saskatoon, Saskatchewan, S7N 1N3

Labor-Management Co-operation in US

"Employee participation is changing American organizations in a manner which is permanent, endemic and irreversible," Robert Ahern told the Industrial Participation Association of Great Britain this April. Ahern is the executive director of the Buffalo-Erie County Labor-Management Council.

Ahern maintains that employee involvement is "an evolutionary step in our collective bargaining system," and speaks to workers' needs for recognition, involvement and dignity. It requires on-going consultation between unions and management, and thus requires, he argues, a change in present laws that limit contract renegotiations to a two-month period.

Ahern believes that employee involvement will boost productivity. He cites one economist who demonstrated that 70 per cent of U.S. productivity gains since 1889 came from "soft technology," such as improved engineering and job design. These items "provide the agenda for the Labor-Management Committee," he says.



Reg Basken of the Energy and Chemical Workers addressing the Saskatoon conference.

Journal launched

A new journal dealing with employment issues has been launched in Holland. The first copy of *European Centre for Work and Society News* appeared in December, 1982 and will be published three times a year.

The newsletter welcomes contributions, as well as announcements of events and publications. The Centre's address is P.O. Box 7073, 6202 NB Maastricht, The Netherlands.

Steelworkers will press QWL issues



Gerard Docquier, Canadian director, United Steelworkers

Demands for increased worker input into decision making will become a major bargaining theme of the 1980's. Gerard Docquier has informed leading Canadian executives. The Canadian director of the United Steelworkers of America (USWA) was speaking at an April seminar of the Niagara Institute in Ontario.

The Steelworkers will press QWL issues at the bargaining table, Docquier explained, because of widespread dissatisfaction over being treated only as "a set of hands" at work. A recent survey of USWA members indicated a strong desire for more information about management decisions and increased worker responsibility for production.

Denmark toys with QWL

The introduction of autonomous group working methods and other organizational innovations at Lego-System, the Danish toy manufacturer located in Billund, has generated higher productivity, lower spoilage, and better quality – as well as an improved working atmosphere – according to a report in the Danish industrial union paper.

The creation of autonomous groups in the packing departments has meant that a four-person group does all the management of its work assignment, and participates with other groups in planning production. Tove Christensen, shop steward, says: "We see in the autonomous groups an increased degree of freedom. The supervisor comes around with the figures 14 days in advance of the production schedule. After that, it is up to the group to fix the norms, carry out the production and do all the administrative work. The group also does the spot checking necessary for quality control. The work groups constitute an obvious proof that, when workers have some influence over what they are doing, and feel

responsible for the work, efficiency increases. Where autonomous groups have been introduced, production is now 4 percent to 5 percent higher than before. And workers have a better working atmosphere."

Productivity has also risen partly as a result of new equipment. For example, one new packing system requires the work of four or five people, against 20 previously. But the new automated machinery has been introduced in consultation with employees, who have appreciated the resulting reduction in stress. Christensen states: "It is better that a few people work at a machine all their lives rather than a large number who have to give up after a short time as a result of fatigue."

Because of higher productivity and a temporary downturn in orders, about a third of the 2500-person work force was idle for a time on Fridays, but they were compensated with 94 per cent of their regular wage. This also improved working relationships.
(LO-Bladet)



Office of tomorrow

The "office of tomorrow" was the subject of an April conference in Montreal, sponsored by scholars from a number of institutions such as the Hautes Études Commerciales, Industrial Designers Association of Canada, and polytechnical schools.

The two-day conference focussed on ergonomics and the state of the art in integrated office communication systems. Although the conference theme highlighted "Quality of Life in the Workplace," most presentations were strictly technical.

In her presentation on the human implications of office technology, Professor Jeanine McNeil of the Hautes Études Commerciales, stressed the need to involve workers and unions in the process of change and the need to retrain people for new opportunities.

Automatic control

Operators should participate in the design process of new technology, argued speakers at a conference sponsored by The International Federation of Automatic Control, in Baden-Baden in September, 1982. They also stressed that job content and satisfaction be considered by designers of machines.

Sarnia unions on QWL

The Sarnia and District Labour Council in Ontario has issued a discussion paper on QWL to all its affili-

ates. The paper, which is favourably disposed to QWL experiments, is based on interviews with local unionists involved in QWL projects.

In a reference to non-QWL environments, Stu Sullivan, a representative of the Energy and Chemical Workers Union in Sarnia, asks: "Why should a process operator who is ultimately responsible for millions of dollars worth of equipment have to seek permission to use a small tool? It's no wonder that lack of initiative is a problem."

The discussion paper argues that growing support for QWL within unions "signifies a recognition that traditional work arrangements stifle and waste human talent."

British Columbia Forum

The B.C. Work Life Forum plans to hold one day introductory seminars on QWL at various locations around British Columbia. For information contact:
Dag Furst
5490 Greenleaf Road
West Vancouver, B.C.
V7W 1N6
Tel: (604) 921-8700.

Correction

Our apologies to Hélène Grenier, École Polytechnique, Montreal, whose name was omitted from the final text of our February, 1983 issue as one of the newly-elected board of directors of the Canadian Council on Working Life.

Swedish auto firm makes turn to QWL to boost productivity

A new phase in the thinking behind organizational design is emerging in a Swedish project called "Future Production Systems in the Auto Industry," being carried out by Chalmers Technical Institute in Gothenburg. It has been described in *LO-Tidningen*, the weekly paper of the industrial union federation. In a previous phase of work organization activity in Sweden, in the early 1970's, the driving forces were employee discontent manifested in recruiting difficulties, high employee turnover and absenteeism. Productivity norms in some new plants built at the time were not the first priority.

Today, the key elements are competitive pressures, the Japanese challenge, and management discontent with the inefficiencies of traditional production systems. Previously, efforts to abolish assembly lines were motivated primarily by a wish to increase job satisfaction. Now it is widely recognized that these lines are inefficient because of balancing problems, systems losses, poor quality (requiring extra spending on adjusters and utility men) and sensitivity to minor disturbances (when a breakdown occurs at any point, the entire line must stop).

One response is to press on rationalization, automation, and incentive payment systems. But in companies such as Volvo, "changes in the work organization are seen as critically important today – in order to increase the company's competitive strength." It is also increasingly realized that there is a waste in "hiring an entire person and then using only his two hands." Modern organizational thinking therefore is directed toward "stimulating production workers, either individually or in groups, to learn new jobs, carry increased responsibilities, participate in planning and budgeting, etc." Swedish unions are in full support of



Employee discontent, turnover and absenteeism led Swedish companies to pioneer QWL in the 1970's. Now, productivity is the first priority.

the goals, and often take the initiative in pressing for organizational reforms, as at a marine engine plant at Volvo.

Volvo still thinks about job satisfaction, as in this goal for its plants: "To obtain as much enjoyment from the job as from leisure activities." But productivity is also a high priority. At a new plant for heavy truck chassis in Tuve, the principles have been put into operation. Final assembly is done by teams on half-hour cycles, and each team's station is separated from the next by a buffer equivalent to an hour's work. The groups can opt to widen their tasks, compensated by group bonuses, to include manning decisions, maintenance, personnel (participation in recruiting and training), industrial engineering, and methods improvement. The plant has only three hierarchical levels – the plant manager, the supervisors and the work teams.

Similar examples exist in other parts of Volvo and in Saab-Scania. One set of knotty problems in developing new organizations is the establishment of fair and stimulative premiums. If new payment systems cover only a part of a plant's work force, those outside will doubtless resent the system. If a group receives a group-based bonus, it will be more advantageous over the short term for

it to remain in a specialized spot, thus reducing flexibility and threatening organizational innovations.

One promising alternative is a payment-for-knowledge bonus, not tied to performance, but this is not universally admired. It is suggested that more organizational fresh thinking may be encouraged by union demands for long-term contracts specifying minimum cycle times (e.g., one hour), minimum buffers, maximum proportions of work subject to MTM measurement, and guarantees for advanced training.

The author stresses that more can be done with knowledge already available, and that the responsibility for foot dragging must be shared: "Management's fear of taking risks is one reason that changes are not more far-reaching. Another reason is lack of knowledge on the part of unions." The goal should not be job satisfaction, he says: "The important factor is not 'job satisfaction' – that has no special connection either with efficiency, health, or good working conditions. The essential point is that knowledge must increase – and with that will come responsibility, interest in production, union activity and demands on the work environment."

(LO-Tidningen)

Sweden sets up invisible contracts

The "invisible contract" is reportedly the decisive element now emerging in Sweden to characterize relationships between employers and employees in the future, according to surveys carried out by SIFO, an opinion-measurement firm. The surveys were conducted as part of a multi-country study entitled "Jobs in the Eighties," under the aegis of the Aspen Institute and guided by Pehr Gyllenhammar, head of Volvo. They are reported in *Veckans Affärer* (December 2, 1982).

The significance of the "invisible contract" is in bridging the gap between the aspirations of employees and the inadequacy of the jobs available to them to satisfy these aspirations. Work as a means of earning money and increasing personal welfare is, in the view of the Swedes interviewed, dying out. "Today it is more important to find meaning in one's work and to receive recognition from one's superiors. Therefore the long and detailed job specifications contained in collective agreements must be supplemented."

At present, working conditions for most employees fall far short of the

ideal. Some 40 per cent of employed persons in Sweden have serious complaints about their jobs. The complaints range from poor information given to employees, lack of job security, and difficulties in using professional skills, to a negative climate of responsibility, inadequate influence exerted by employees, and excessive stress in the work.

Because these matters can only with difficulty, if at all, be pinned down in a formal contract, but are of great importance to employees, they must be dealt with by managements, as a matter of urgency. That is the "invisible contract" — the effort to satisfy employee needs in such intangible areas.

The SIFO report states: "We believe that there is a clear connection between a good invisible contract and such productivity-enhancing factors as involvement in the work and quality consciousness." Where a good "invisible contract" exists, there should be in evidence a good responsibility climate at the workplace, support given by the employer to employees, a willingness on the part of employees to make especially great contributions when the workload is heavy, and the friendly relations existing between employees and their immediate bosses.

ASTA's action research gets underway

A new program of action research has recently been launched in Sweden, sponsored by employers and unions, to carry out experiments in companies and disseminate information on advanced organizational projects.

The program, known as ASTA (*Arbetskyddsfonden Program för Ny Teknik och Arbetsorganisation* — The Work Environment Fund Program for New Technology and Work Organization), is being financed by a 55-million Swedish crown (about \$9 million) grant from the Arbetskyddsfond, a state-sponsored body overseeing research in questions of work and work organization, but companies will also contribute money to cover projects in their own companies. The program is set up initially to run for three years.

A previous Swedish program in the late 1960's and early 1970's was URAF, the Development Council for Work Research, also jointly sponsored by employers and unions, carried out valuable research, but it was criticized for concentrating on "shielded" parts of companies which tended to become isolated in their own research world and cut off from the rest of the organization.

ASTA is being supported by LO, the industrial union federation, TCO, the white-collar union federation, and SAF, the employers federation. The body began its existence at the beginning of 1983.

Case histories of what are called "frontier projects" involving unusual organizational thinking are at present being collected and assessed, and information on them will shortly be published.

A main task of ASTA will be to speed up the application of new technology and to demonstrate that, if new technology is combined with good organizational design, exceptional levels of efficiency and productivity may be achieved.



Arbetskyddsfonden

Swedish food processors pack it in. Some 40 percent of Swedish workers complain about their jobs. "Invisible contracts" are designed to deal with the intangibles of job satisfaction.

Basic agreement

A newly refurbished approach to management-labor co-operation on QWL matters and related questions is being rapidly put into operation in Norway, according to the official paper of the Norwegian Employers' Federation.

The new campaign derives from a revision of the "Basic Agreement" (*Hovedavtalen*) last year, the framework document covering relations between employers and employees and setting forth guidelines for cooperation and discussion, the objective being to minimize conflict and maximize harmony between the parties. The 1982 revision is notable because of the enlargement of areas in which cooperative efforts of both sides are necessary.

Article 9 of the new agreement stipulates that the parties shall co-operate in order to "increase efficiency, lower production costs and improve companies' competitive strengths." But they are both also required to work together to "create more satisfying jobs, better workplaces and better organizations - which are both efficient and capable of satisfying employees' needs for self-actualization." All of this should be done through the operation of "practical forms of participation and codetermination."

These activities are to be actively supported by the central organizations of both the employers and the employees. Companies may therefore receive grants for projects in QWL activities and job design projects. The two sides also finance some joint activities designed to increase the competence of companies in the area of QWL. A first initiative in this direction was the joint sponsorship by unions and employers, with the assistance of the Norwegian Work Research Institutes, of a conference early this year in the hotel and restaurant sector devoted to organizational problems in this field, attended by representatives of ten companies. Other similar activities are in the works.
(Arbeidsgiveren)



In this Swedish experiment, line production is adjusted to provide multiple tasks.

Joint action taken to reduce absenteeism

A participative method of reducing absenteeism has been developed and tested over a two-year period in Sweden, under the guidance of Professor Sigvard Rubenowitz of the Psykologiska Institutionen in Gothenburg. The method is based on more than five years of action research in Swedish companies, which indicated that absenteeism might be linked to certain factors in the workplace, and that the defects might best be remedied through worker participation.

At each site, employees were interviewed on their work situation. Discussion groups were formed to discuss absenteeism as well as other problems, and the groups were asked to suggest improvements in the work environment. Many of the workers' suggestions were carried out (replacement of old machines, introduction of gymnastics at the workplace, improvement of lighting, creation of opportunities to switch jobs). The tests were carried out in a factory, in a department of the state telecommunications company, and in a hospital. At the three workplaces, two years after the experiment began,

absenteeism had dropped (in terms of total working times lost) from 13.3 per cent to 10.4 per cent from 19.0 per cent to 15.8 per cent and from 7.4 per cent to 7.2 per cent.

Most of the gains were in short-term absenteeism, but Professor Rubenowitz believes that, with the continuation of the methods, long-term absenteeism will drop as well. It is long-term absenteeism that accounts for most of working time lost through absenteeism. (*Svenska Dagbladet*, 8 December 1982)

McGill QWL Certificate

Quality of Working Life Facilitators' College, McGill University, Montreal
The College is offering the first certificate program in QWL. It is a 4-week intensive course geared towards training applicants to initiate and coordinate QWL programs in their own organizations.

For further information contact:
Rita MacDavid
Room 512, McGill University
1001 Sherbrooke Street West
Montreal, H3A 1G5,
Tel: (514) 392-3022, 392-3075.

Dutch union study looks into "better work"

The Dutch unions have paid relatively little attention to QWL matters in recent years, but there is some interest in the general subject, as indicated in the publication in early 1983 of a book by FNV, the principal union federation, giving the union viewpoint on some QWL-related questions.

The book, entitled *Beter Werk* ("better work"), by Eltjo Buringh (published by Federatie Nederlandse Vakbeweging/Van Gennep) provides information on threats to health at the workplace, and advice to members on what should be done about them.

Sections on "job content" and "contact with co-workers" supply some interesting opinions on psychological and social health. Job content is described as "an essential element in our well-being at work," and it is urged that workers be involved in helping to decide that content.

Specifically, attention should be focused on questions relating to tasks tied to machine-pacing ("workers should be able to establish their own work pace"), the fragmentation of work into small sub-tasks, ("variety within the task cycle is a necessity – monotony destroys the pleasure in work"), autonomy ("opportunities must exist for making autonomous

decisions regarding the work"), freedom ("the necessary freedom must be granted on how tasks should be carried out"), and a view of the total work process ("workers must have knowledge of their own place in the total work effort").

Regarding "contact with co-workers," the book declares that such contact "plays an important role in producing good working conditions in a company – for many people it is the most important factor; isolation at the workplace should be avoided."

The section on social and psychological factors at the workplace are a small part of the book, but may indicate that the Dutch unions are devoting more attention to such underlying questions, and that this will show up in other ways in the future.

German study surveys work organization

A comprehensive survey of available knowledge on work organization – primarily for the benefit of workers and union representatives – has just been published by Rowohlt in Germany. Entitled *Organisation der Arbeit – Arbeitsteilung, Qualification, Schichtarbeit* ("Organization of Work – Division of Work, Qualification, Shift Work") edited by Lothar Zimmermann, the book originated within the DGB, the German industrial union federation, and was written in co-operation with union experts.

It presents explanations of some of the basic problems and principles of work organization, job enrichment, and new approaches in the engineering aspects of production systems (e.g., buffers, non-machine-paced lines, placement of machines) aimed at alleviating organizational problems. Considerable attention is devoted to the psychological difficulties that can result from stress and other factors in poorly designed work organizations, and the authors emphasize that "self-actualization in work can be furthered" by taking proper care in shaping the organization.

A large part of the discussion centers on such factors as motivation, learning on the job, and qualifications, and their relation to the rights of works councils, codetermination,

and other parts of the rather formidable legal structures affecting work organization in Germany. In addition, there is a long discussion of shift work – the legal, psychological, and economic elements – and the trade union position on the question. All of the subjects are treated in the light of union attitudes and negotiating strategies.

The book is one of a series of five, all reflecting union opinions, the others on work organization and codetermination, health and safety at work, the influence of computers on working life, and stress at work.

Rimouski Centre

Centre d'intervention et de recherche pour l'amélioration des situations de travail (CIRAST)

(The centre for researching and implementing improvements in the workplace), Université du Québec, Rimouski

The Centre aims to develop local QWL expertise in the fishing, fish processing, and pulp and paper industries in eastern Quebec. The centre holds seminars providing training on specific subjects at the request of interested groups. For further information contact:
Professor Chaumel
300 avenue des Ursulines
Rimouski, Quebec, G5L 3A1
Tel. (418) 723-1986.

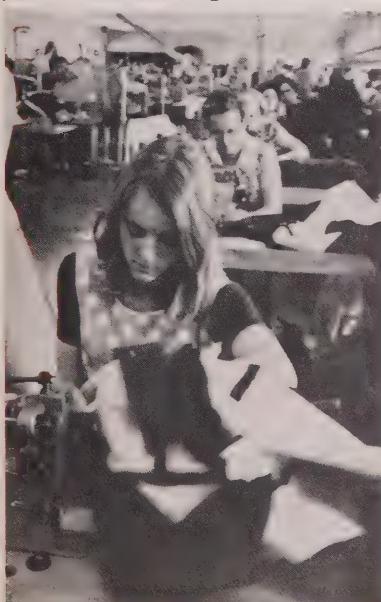
New from the QWL Centre

QWL and Management
QWL and the Office

Like our 1980 anthology, *QWL and Unions: Selected Articles*, these information kits contain recent, but hard to get, articles. The kits are available free by writing to the Ontario Quality of Working Life Centre

Ontario Ministry of Labour
400 University Avenue, 15th Floor
Toronto, Ontario, Canada,
M7A 1T7
Tel: (416) 965-5958

Pauline Hyman contributed her experience with Centre information services and her abilities as a writer to play an instrumental role in the preparation of this section.



Workers, not machines, should set pace, Dutch study claims

Coming events

Canada

The age of microchips: the next five years The human consequences of the new technology

Thursday, July 28 to Sunday, July 31, 1983

July 28

Opening address

The Honourable Edward Lumley, P.C., Minister of Industry, Trade and Commerce

Keynote address

The technology of the information society

Gordon B. Thompson: Fellow Emeritus, Bell Northern Research

July 29

Present evidence of future trends

Dr. Stuart Smith: Chairman, Science Council of Canada

John Kettle: Publisher and Editor, *The FutureLetter*

Robert Arnold Russel: Author, Lecturer and Columnist

Effects of the new technology on the quality of work

John Shepherd: Principal, Nordicity Group

Ray Hainsworth: Ontario Federation of Labour

Mary Baetz: Job Design Consultant

July 30

The debate over employment - winners and losers

Helen Menzies: Author of *Women and the Chip*

Professor S.G. Peitchinis: Economist, University of Calgary

Monica Townsend: Economic Consultant

General issues - who controls progress? Who pays the social cost?

Professor Calvin C. Gotlieb: Dept. of Computer Science, University of Toronto

Professor Vincent Mosco: Temple University, Author of *Push-button Fantasies*

Sylvia Dotto: Freelance Science Writer

July 31

Designing the transition

Professor Hudson Janisch: Faculty of Law, University of Toronto

Helen Haslam: Sun Life Assurance Company of Canada

Dr. Hans van Beinum: Executive Director, Ontario Quality of Working Life Centre

Canada's competitive position

Dr. Douglas C. Peters: Senior Vice-president, Toronto Dominion Bank

Fred Pomeroy: President, Communications Workers of Canada

Zavis Zeman: Program Director, Institute for Research on Public Policy

Registration, including accommodation and all meals, will cost about \$300.00 per person for three days and four nights.

This is the 52nd Annual Couchiching Conference at Geneva Park, Orillia, Ontario

For more information contact:

The Couchiching Institute of Public Affairs,

20 Eglinton Avenue East, Suite 203,

Toronto, Ontario M4P 1A9,

Tel: (416) 489-9212

Partners in Design

The Niagara Institute has announced a new series of workshops organized under the theme "Partners in Design." Tailored to the needs of specific organizations and available on a year-round basis, the course emphasizes peer learning.

According to the brochure: "Your organization already has most of the knowledge, insights and skill it requires to solve its own problems. The right process, managed by experienced people, will tap these resources. This is a guiding principle behind Partners in Design."

For further information contact:

Ray Rouse

Director of Client Programs

P.O. Box 1041

Niagara-on-the-Lake, Ontario

L0S 1J0

Tel: (416) 968-3885

Bridging the Gap, September 22-23 Vancouver

Presentations by B.C. employers and employees, trade unionists, academics and professional consultants will focus on the gap between:

- old ways of working and the new social economic context
- labor and management

For conference information contact:

The B.C. Work Life Forum

P.O. Box 46661, Station G

Vancouver, B.C.

V6R 4K8

Working Now and in the Future

August 11-12, 1983, Washington, D.C.

This conference, sponsored by the World Future Society, will bring industry, labor and government officials together, at the Hyatt Regency Washington on Capital Hill.

Conference sessions will cover robotic technology, new trends in education, retraining and career specialization, macrotrends affecting economic developments and new theories of management.

For conference registration and information contact:

Conference Director

World Future Society

4916 St. Elmo Avenue

Bethesda, Maryland 20814

REFERENCE

Automation and the challenge of work design

New automated equipment will not lead to increased involvement of workers in decision making unless there are major changes in organizational attitudes, argues Dr. Joel Fadem. His study of "Automation and Work Design in the United States" is forthcoming from the International Labour Organization but is now available as a working paper from the Centre for Quality of Working Life, Institute of Industrial Relations, University of California, Los Angeles, 90024.

New technology requires corresponding organizational changes, Fadem believes, because of the high premium placed on a flexible, innovative workforce. Socio-technical design with input from unions and management could help to produce that "internally consistent work culture," he claims.

Yet Fadem found few cases to suggest a trend in that direction. He had to look outside the U.S., to the Shell plant in Sarnia, to find one of the few positive examples of the process.

In the same pessimistic vein, B. Hennestad expresses concern that computer technology "cements" trends toward bureaucracy, hierarchy, de-skilling and centralization. His article on "Computer Technology, Work Organization and Industrial Democracy" in *International Studies of Management and Organization* (12, 3 1982) refers to new technology as the "Trojan horse of Taylorism."

World of Work Report (8, 4, April 1983) assesses a recent survey of firms introducing new technology in this setting. Although the technical systems were universally sound, only three of 18 firms reported improved productivity. Advanced office systems, it is concluded, pose questions not of the technology but the organization, and "how it responds to change and how carefully it considers human need."

Writing in *Human Relations* (35, 12, 1982), Richard Walton insists that there is "Social Choice in the Devel-

opment of Advanced Information Technology." If new technology reduces workers' skill and self-esteem, he argues, it will lead to conflict.

Walton concludes that applications of the new information technology should be guided by human-development criteria; they can be so guided, and now there is a decent probability that they will be."

Honeywell's vice-president of human resources, A.F. Konarick, agrees. In *World of Work Report* (8, 1, January 1983) he describes a task team approach to the introduction of new technology. He claims this approach at Honeywell offset anxiety about job loss, involved workers in decisions, and established guidelines for evolutionary change. New approaches to training for new technology along QWL lines are discussed in *Education and Training* (25, 1, January 1983).

Stress, responsibility and burnout

Until nine years ago, social service professionals used to feel worn out, frazzled, fed up and used up. Then the term "burnout" became a household word. To mark the anniversary of this new concept, B.A. Farber has edited *Stress and Burnout in the Human Service Professions* (Pergamon: New York, 1983).

All contributors agree that burnout is distinct from traditional apathy and alienation. Burnout refers to the emotional exhaustion suffered by human service professionals once "fired up" with enthusiasm.

Contributors also agree that burnout reveals defects in work organization rather than individual personalities. Various writers' suggestions for work redesign read like a prescription for QWL: skill variety, task significance, task identity, autonomy, feedback, participation and learning.

Meanwhile, in Ontario, nurses are starting to take action on their problems with burnout.

According to a March 1983 report in Canada's *Quest* magazine, understaffing and too many non-nursing duties led the Ontario Nursing Association to negotiate a "professional responsibility clause". The clause

provides for greater control by nurses over workloads and patient care. It is possible that such a clause could be used as a lever for introducing QWL issues to the hospital scene.

Those interested in more information on hospital workers may wish to read P.C. Sexton's *The New Nightingales: Hospital Workers, Union and New Women's Issues*, (Enquiry Press: New York, 1982).

Shifting values

Shift work, and particularly night work, undermines job satisfaction, physical and mental health, as well as family and social life, according to three Australian studies.

Results of K. Greenwood's *SEC Quality of Life Survey* (1982) and "Work Effectiveness on Shift and Night Work" (1982), both published by La Trobe University, indicate the harmful medical effects of shiftwork. More contradictory findings are reported in the Department of Employment and Industrial Relation's *Work and People* (8, 1, 1982). A study of shift workers in Britain, published in *Human Factors* (2, 3, 6, December 1982) also concludes that "the quality of sleep is degraded and performance is impaired" by shift work. The study suggests that short rotations with days off before and after night shifts can help overcome the inherent tension between body cycles and shift cycles.

There is some evidence that companies are beginning to take action on this growing body of evidence. According to the *World of Work Report* (March 1983), a Utah corporation is experimenting with new approaches to shift work. By allowing greater time for adaptation to each change of shift, the company reduced turnover, absenteeism and health and family problems, while increasing productivity 20 per cent.

Industrial Relations Review and Report (288, January 25, 1983) discusses American Can's (U.K.) successful switch to a five-shift system. An article in the March 1983 *Personnel Journal* reports on variations in shift schedules and argues that a choice over work hours provides employees with a greater sense of input and control over the work they perform.

Long-distance feeling

The office of the future looks a lot like the factory of the past, sings Nancy White, one of Canada's best known folk artists. And recent Canadian publications bear her out. New research also shows that new technology is less effective when introduced in the old ways.

Don Tapscott's *Office Automation: A User-Driven Method* (New York: Plenum, 1982) focusses on effective implementation of new technology.

To be effective, he argues, the machinery must be "user-driven." Thus, he deals with the necessity for employee participation and social redesign based on quality of working life principles.

Tapscott is a business consultant with Trigon Systems and his book emphasizes smooth introduction of new technology for greater productivity. Taking a different tack, Heather Menzies comes to parallel conclusions. Primarily concerned with the effect of automation on workers' jobs, skills and independence, her *Surviving Canada's Microcomputer Revolution: Computers on the Job* (Toronto: Lorimer, 1982) deals with many of the damaging effects of office automation on the work environment. Her book argues for a marriage of social and technical redesign along QWL lines.

Menzies first became interested in office automation in terms of its effects on women's work. Her *Women and the Chip* (Montreal: Institute for Research on Public Policy, 1980) is considered a pathbreaking study. The same concerns are updated in Paul and Erin Phillips' *Women and Work: Inequality in the Labour Market* (Toronto: Lorimer, 1983). The Phillips point out that the very term "computer" is taken from the job classification of women office workers who performed calculations on artillery for the U.S. armed forces during the Second World War. Their job was mechanized and taken over by one "computer."

Popular fears about the impact of new technology on job satisfaction have also received attention from the non-print media. Laura Sky's controversial film, "Good Monday Morning" focusses on office workers. The 30-minute documentary is available from Skyworks, 566 Palmerston Ave., Toronto, M6G 2P7.

Meyer Siemiatnicki's "Dial M for Microtechnology" deals with the suspense in the telephone industry over new equipment. The hour-long radio documentary emphasizes the clash of opinion between managers — some of whom describe the automated workplace as a fun-filled video-arcade — and operators, concerned for their mental and physical health in new stressful, impersonal surroundings. Siemiatnicki's series is appropriately titled "The Microchip Battleground." Transcripts are available from CBC Transcripts, Box 500, Station A, Toronto, M5W 1A6.

The "long distance feeling" between management and workers generated by new technology can lead to massive confrontations. Elain Bernard's history of B.C. telephone unionism indicates. Her *The Long Distance Feeling: A History of the Telecommunications Workers Union* (New Star: Vancouver, 1982) argues that telephone companies pioneered new office technology in such a way as to

provoke labor militancy. Following a 1969 strike in which supervisors took over operators' jobs and found out how boring they were, the company announced its intention to make jobs broader and more interesting. This policy was not acted on, Bernard claims, until 1981 when company facilities were occupied during a desperate strike over technological change issues. During the occupation, strikers maintained service but rotated jobs and undertook to learn all aspects of work in their buildings.

To place these developments in international perspective, D. Werneke's *Microelectronics and Office Jobs: the impact of the chip on women's employment* (Geneva: ILO, 1983) is useful. Werneke points out that a majority of computer users "suffer frustrated expectations" because they did not involve and prepare employees for new technology.

Werneke outlines three factors that explain these disappointing results — results of what has been called "the boys and their toys syndrome." First, the informal networks and problem-solving abilities of office workers are seldom recognized, and equipment is not designed to take these qualities into account. Second, training efforts are too narrowly focussed on specific tasks rather than conceptual skills that could take full advantage of the



Worker attempts to humanize her environment.

new technology. Third, managers overrate the importance of office technology in reducing text-production costs where savings are minimal, and underrate the potential of new technology to increase managerial effectiveness and access to information.

Werneke is also distressed about the human consequences of these errors. "As the level of responsibility and discretion is reduced and activities are more closely monitored" with new technology, she writes, "jobs become increasingly feminized and women in these jobs come to resemble the assembly-line factory worker."

In her concluding remarks, she argues that "work content and organization are also seen to be key issues which can only be satisfactorily resolved by greater employee involvement in decisions about new technology."



op

Sexual equality "is logically necessary for democracy in working life," insists Joan Acker, guest editor of a special women's issue of *Economic and Industrial Democracy*, (November, 1982). The special issue was designed to compensate for the lack of serious study on discrimination against women and its impact on quality of working life reforms.

Questionnaires dealing with "job satisfaction" do not reveal the particular dissatisfactions of women, according to a Finnish report by E. Riska and R. Raitasalo. Men and women give similar responses when asked about "job satisfaction." But when questions emphasize denied opportunities, the authors claim, women's dissatisfaction rates soar.

A Norwegian-based report challenges the traditional interpretation of women's low participation in work reform experiments.

This is not due to women's home responsibilities and preoccupations, argue H. Kaul and M. Lie, but to the "vicious cycle" at work: "They are employed in peripheral positions . . . where working conditions are poorest, and in turn, this hampers . . . their commitment to work and future possibilities to . . . influence their working conditions."

A United States-based report by M. Finigan discusses the problems of "token" female representation on QWL committees. Minority status inevitably makes people feel like "outsiders," Finigan claims, and works against active participation. The concern for a women's perspective on QWL is carried over to the February, 1983 issue of *Economic and Industrial Democracy*. Three feature articles deal with women's themes.

Women and QWL



In the same issue, Ain Haas reports on a 1980 poll of Swedish workers' attitudes towards the co-determination laws passed in 1976. According to his findings, workers feel most positively about their increased access to information.

However, many feel frustrated that this knowledge does not increase their access to decision making. One worker called the law a "signal-horn," which "requires the employer to toot before he runs us over."

Despite such disappointments, Haas' findings confirm that support for workplace reform runs strong and deep throughout Swedish society.

Canadian material on women and QWL is virtually non-existent. Jan Mears, now a consultant with the Ontario QWL Centre, set out some important themes in "Quality of Working Life and Women," *Quality of Working Life, the Canadian Scene* (4,2, 1981).

A women's caucus, "the 51 per cent minority caucus," has also been formed within the Canadian Council on Working Life. For information contact:
Jeanne Cohen,
Canadian Council on Working Life
1230 Danforth Avenue
Toronto, Ontario, M4J 1M6.

Vicious circles

Virtue is supposedly its own reward in the practice of quality circles in Japan. This does not apply when such techniques are introduced in the West. W.G. Jones, senior lecturer in Management Studies, University of Waikato, N.Z., looks at the reasons why quality circles sometimes fail in "Quality's Vicious Circles," *Management Today* (March 1983).

Secrets of success

The Japanese concept of quality control is "one of the principal reasons for the Japanese economic miracle," claims Charles Connaghan, and the Canadian government should launch a program to promote it.

Connaghan's *The Japanese Way: contemporary industrial relations* (Ottawa: Labour Canada, 1982) provides a Canadian-based overview of Japanese industrial relations. Quality circles – based on direct, shopfloor prevention of defects rather than down-the-line inspection of defects – are seen as an outgrowth of the larger industrial relations system.

Japanese unions were won to a perspective of improving productivity in 1955, Connaghan writes, because of commitments to involve workers in the productivity movement and to share productivity gains with them. Workers came to identify with their companies, he continues, because of company commitments to lifelong employment; many companies provide extra training for employees rather than subject them to layoffs. As well, blue collar workers are salaried, and receive the same wages as office workers.

For their part, employers have invested heavily in new technology – much more heavily than North American companies, Connaghan maintains. Half of the world's industrial robots are in Japan. Over half of Japanese unionized companies provide labor-management consultation committees independent of collective bargaining; union suggestions are taken into account at least half the time.

For its part, the government subsidizes employers who maintain a full work force rather than lay-off workers. Labor laws do not interfere with collective bargaining in the private sector and derive their authority from a constitution which prescribes that "working conditions must . . . meet the needs of the worker who lives life worthy of a human being."

Connaghan concludes his study with a list of nine suggestions that would bring Canadian industrial relations into line with what he considers the positive features of Japan's system.

Quality circles in Britain

Quality circles are making the rounds in Britain. In February 1983, the Work Research Unit, a tripartite Quality of Working Life centre operating within the Department of Employment, published an Occasional Paper, "Quality circles in perspective," by S. Russell. Russell tried to "examine quality circles within the broader context of improving the quality of working life."

The Japanese introduced quality circles, Russell claims, to overcome their image as "cheap junk" exporters, and to achieve the "zero-defect" record necessary for success in the export field. The basic idea of quality circles – workteam control over quality – can be applied throughout the world, the study maintains.

The Work Research Unit report offers cautious support to quality circles in Britain: "In appropriate applications, QC can be part of, or an introduction to, a broader long-term strategy for organizational change designed both in terms of economic outcome and quality of working life."

Whatever the impact of Japanese-style quality circles on quality of worklife, a study of "Japanese management and British workers" confirms that quality production is achieved. Writing in the *International Journal of Manpower* (3, 4, 1982), Michael White reports that Japanese branch plants successfully involved workers in production-planning meetings.

Fast lane to despair

Instant experts have turned the publishing bonanza on secrets of Japanese productivity into a major growth industry. Sifting through the extravagant and conflicting claims is no easy matter. But two recently-published English-language studies may help cut through the stereotypes.

Sahashi Kamata's account of his experiences as a seasonal worker at Toyota has just been translated into English as *Japan in the Passing Lane* (Pantheon: New York, 1982). Reflecting the North American obsession with catching up to Japan, the publishers dramatically changed

the title from the Japanese original: *Automobile Factory of Despair*.

The original title left little to the imagination. Kamata's is an angry tale of speedup and exhaustion on the production line – what he calls "The Dark Side of Toyota in the Wonderland." The English edition also contains a useful introduction by R. Dare of the Technical Change Centre in London.

S. Takezawa's *Improvements in the Quality of Working Life in three Japanese Industries* (ILO: Geneva, 1982) presents a different picture. He includes a wide variety of features in his assessment of quality of working life, including wages, holidays, benefits and job satisfaction. He reports a doubling of wages and benefits over the past 15 years, and a reduction in retirement age to 55. As distinct from Kamata's account, which was based on 1972 experiences, Takezawa notes recent improvements in job satisfaction and reductions in speedup due to automation.

Takezawa insists that the Japanese experience be seen in light of universal developments, not as a product of unique Japanese culture. His report on work force attitudes confirms this; one survey found that 18.5 per cent thought labor-management relations were fundamentally antagonistic, 15.3 per cent thought they were fundamentally the same, and 58.1 per cent thought they balanced "confrontation and harmony." This is comparable to North American and European findings, as is Takezawa's report on job attitudes. Despite a profound heritage of "hatarakigai" and "yarigai" (the sense that work has personal meaning and worth), high levels of dissatisfaction ("bored and fed up") were reported, particularly among female and assembly line workers.

Takezawa maintains that Japanese unions have been promoting "the building of a hatarakigai workplace," since 1970, a year before the famous Lordstown, Ohio strike brought world attention to worker alienation. However, job reform and work redesign have not been prominent, he believes, because supervisory and pay systems allow for less formalized innovations.

Japanese and European developments in quality of working life are compared in Manabu Mine's *Humanisation of Work and Industrial Relations* (Tokyo: Japan Institute of Labour, 1983). Mine notes that "foreign observers of the Japanese way of management are inclined to take small group activities as the quality of working life measure." He cautions that "the status of employees in Japan is not so independent from their management as that of the European workers, in addition to the fact that traditional work organisation remains intact. Small group activities are realistic but marginal management measures to deal with aspirations of workers."

In terms of Canadian workers' reaction to Japanese production methods, Jim Donegan's report in the Ford-Oakville union paper *Seven-O-Seven Reporter* (26, 1, January-February 1983) is useful. Donegan was part of a joint union-management tour of Japan, and reported back on the superior health and

safety conditions and employee benefit plans he found. In Donegan's view, the individualistic and multi-cultural heritage of Canada makes Japanese methods "not transportable."

Lack of control

Higher levels of stress are found on the shop floor than in executive offices, according to *Work Life*, (3,2, 1982). People feel threatened by adverse working conditions over which they have no control. This, in turn, disrupts their work and family life. These findings are confirmed by a report of the European Foundation for the Improvement of Living and Working Conditions, which suggests that families of blue-collar workers experience more stress-related illnesses than the families of white-collar workers. The report, *Physical and Psychological Stress at Work* (Shankill, 1982), recommends a multi-country inquiry focussing on various work situations.

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Higher levels of stress are reported on the shop floor than in executive offices.

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Work must have dignity, creativity

by Karen Levine

The New Year's Statement of the Canadian Conference of Catholic Bishops continues to stir debate in both church and secular circles. So far, most of the controversy has focused on its blistering attack on unemployment.

But the Bishops dealt with more than being *out* of work. They delivered a strong message about the meaning and organization of work itself. It bears notice from people interested in quality of working life.

The Bishops' Statement was guided by two fundamental principles of Catholic social teaching: the preferential option for the poor and oppressed; and the value and dignity of human work. They argued that the needs of working people must be placed above the expansion of profit and technology.

"This principle has enormous consequences for what happens at the workplace," claims world-renowned Catholic theologian Gregory Baum, presently writing a full-length study of the Bishops' Statement. "It means

An enemy to life

"I believe it is necessary to find a way that people can work together with maximum creativity. There's a kind of passivity: Alinsky calls it mass resignation, Wilhelm Reich calls it the emotional plague, somebody else calls it laziness. I don't care what you call it; there's an enemy to life that's immersed in our culture and in each person. What we need is a system that can take that to task."

Father Jim Conlon
Toronto School of Theology

that we have to wrestle with the alienation of labour. Workers must be treated humanely in industry, and that means dialogue and co-responsibility.

"This principle must be a guide to correcting present practices in industry," said Baum. "It would mean participation in decisions about the process of production – in short, the democratization of the workplace."

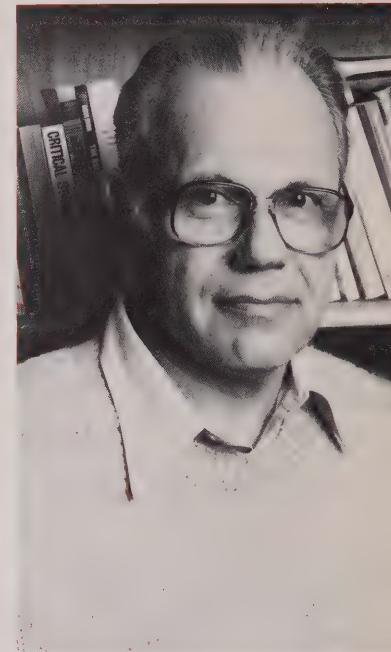
Some critics have accused the Canadian bishops of irresponsible radicalism. But Baum says they took their lead from the highest authority in the Church – the Pope himself.

In his little publicized Encyclical of 1980 – *Laborem Exercens* – Pope John Paul II calls for a fundamental reappraisal of the meaning of human labor. Human work, he says, is "a key, probably THE ESSENTIAL KEY to the whole social question . . . from the point of view of man's good."

The Church's longstanding principle of the "priority of labour over capital," or the primacy of people over things, is at the core of this theology of work. Technology must be an ally, not a master of the worker.

Work is good, the Pope argues in his encyclical, when it expresses the workers' dignity and creativity. And we are charged, he says, with a moral obligation "to link industriousness as a virtue with the social order of work, which will enable man to become, in work, more of a human being."

Gregory Baum, whose *The Priority of Labour* is considered a major interpretive work on the Encyclical, says the Pope clearly rejects the Taylorist or "scientific management" approach to work organization. According to Baum, "Taylorism is an attempt to make the worker conform



The Bishop's Statement "has enormous consequences for what happens at the workplace," says world-famous Toronto theologian, Gregory Baum.

as much as possible to the machine – and therefore reduce work to an extension of technology. This directly opposes the principles of the dignity and creativity of labor. It makes work into total drudgery. There is no self-realization, imagination or productivity to make a worker proud of what he or she achieves. This is the antithesis of creativity."

As the church sets out to collar injustice, it is clear that an important voice will be added to those promoting more humane approaches to work organization. Quality of Working Life offers some of the key ethical and scientific ingredients that can help implement these values.



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A labour perspective on QWL

Editorial: Coming to terms with QWL

by Hans van Beinum

Discussions about Quality of Working Life are often characterized by confusion, misunderstanding and lack of proper definitions. This difficulty is compounded when QWL is discussed from the point of view of trade unions, and it can develop Babylonian proportions when placed in the context of union-management relations.

Ironically, this phenomenon is basically positive. It is a reflection of the fact that there are now more QWL programs and activities than ever before. Confusion is inevitable in various stages of development, discussion and debate.

This editorial attempts to clear up some of the more common misunderstandings.

Quality of Working Life is determined by many factors which govern the relationship between people and their work environment. Anyone's list includes such well-recognized conditions as wages, hours, job security, due process and health and safety. But QWL is also determined by the fact that people have the ability and willingness to learn, and the need and capability for responsibility and autonomy. Whether or not these basic needs and abilities are accommodated in the workplace depends on their recognition in the way work is organized. All these conditions together form a domain which we can call Quality of Working Life.

Confusion 1

This is where the confusion starts. From the point of view of semantics, it is appropriate to call this entire domain 'QWL.' This use of the term includes all those factors which affect the physical, social, economic, psychological and cultural well-being of workers.

However, from the point of view of a specific development of the last 30 years, it is misleading to use 'QWL' in this all-encompassing way. The actual term 'QWL' was introduced only ten years ago. It refers specifically to an approach to the design and operation of organizations in accordance with the values of

democratic society. This design strategy based on an explicit set of values, principles and notions about organizations as systems and about the behaviour of people in organizations was developed by the Tavistock Institute of Human Relations in England in the 1950s and '60s.

It makes a big difference which way the term QWL is applied, i.e. to such factors as hours or pay — which do not necessarily increase the level of on-the-job autonomy — or with regard to the democratization of work — to the participative design of the workplace.

The first use of 'QWL' refers to the *content* of an existing system and does not challenge scientific management which is still the dominant form of organization in today's society. The second use of 'QWL' portrays the *context*, the structure of a new organizational system, which is based on workplace autonomy and self-management.

The latter approach will by definition also affect such items as pay systems or hours of work. The Ontario QWL Centre bases its approach on the second meaning of 'QWL.'

Confusion 2

By position, by right and by responsibility, both unions and management are inherently linked to QWL. However, in the practice of developing QWL in the context of union-management relationships, we can distinguish two approaches based on different and often unstated assumptions. These assumptions, with their different implications, create another source of confusion about QWL.

The difference relates to a difference in the point of departure. At the QWL Centre, the point of departure is QWL as an organizational design strategy, which is then placed in the context of union-management relations. Since QWL is concerned with the design of systems, it will have an impact on the organization of both management and the trade union, as well as on the system characteristics governing the relationship between union and management. In this approach, union-man-

agement cooperation is seen both as a critical condition for the development of QWL, and as a consequence of QWL activities. But it should not be equated with QWL.

In the other approach, collaboration between union and management is taken as point of departure. Subsequently, an area for collaboration is selected. It could be profit-sharing or health and safety, or the involvement of workers in problem solving, or perhaps even QWL in the sense of increasing the on-the-job autonomy of workers.

In this approach, however, the focus is mostly not on the organization of work. Labour-management committees and similar forms of worker involvement are good illustrations of this development, in which union-management collaboration and QWL are almost defined as synonymous. Since organizational design is usually not part of this orientation, there is rarely a direct impact on the organizational features of either union or management, or on the characteristics of the union-management system. Furthermore, it can be difficult to change from a non-organizational orientation to a real QWL focus dealing with structural changes, as the non-organizational approach may have reinforced the existing work system.

On occasion, the point of departure and the orientations in this approach will reinforce each other and can lead unions and management away from QWL design strategies. Indeed collaboration between union and management can become a defence against QWL where neither party is interested in structural change.

Despite significant differences in assumptions and values, the term 'QWL' is used to describe both approaches. Needless to say, this only adds to the confusion about the meaning and merit of QWL.

Confusion 3

The third category of confusion is quite distinct from the previous two. In this category, we encounter

Continued on inside back cover

Reflections on Labour and Management Experience and Attitudes



Hans van Beinum, Executive Director
of the Ontario QWL Centre.

The Ontario Quality of Working Life Centre has now been in existence for six years, engaged in a variety of activities including the development of field projects, education, publications, and promotion. We, at the Centre, are encouraged by the increasing progress made in a number of areas.

Some time ago, the editors of *FOCUS* thought it would be useful to present to its readers some of the experiences of labour and management in developing QWL values and principles in their workplaces. This is the second of two issues devoted to this objective. The first of these two issues was entitled "Management in Transition" and featured interviews with a number of managers actively involved in developing QWL. While it is difficult to generalize, the overall impression from the interviews was that although supervisors had to overcome various kinds of problems, the reaction was generally positive. Those interviews also indicated the importance of leadership and commitment on the part of senior management. The dominant theme was one of optimism and determination.

This issue is devoted to an exploration of QWL from a union perspective. Reaction among trade unions to quality of working life has ranged from contagious enthusiasm and commitment to great reservations and sometimes outright rejection. However, unions are slowly but surely learning to overcome the inevitable obstacles, at the same time developing the confidence required to take advantage of new opportunities for participation in innovative work practices. Such progress is well-illustrated in the interviews which follow, all of which are with trade unionists actively with QWL projects.

There are some interesting contrasts to be drawn from the respective approaches of labour and management. First of all, it is apparent that union leaders have some ambivalence as to their ability to participate actively in quality of working life projects and at the same time carry out their traditional roles as elected representatives.

Secondly, the trade unionists interviewed tend to be less reserved in their assessments not only of projects but also of the motivation and the objectives of their management counterparts.

The candour and directness of some of the interviews might surprise some readers. The Centre feels that those who have a real interest in quality of working life are entitled to receive an unvarnished version of what trade unionists involved in active projects are spontaneously saying and thinking. As the interviews show, they are striving - not, in some cases without difficulty and some genuine anguish - to come to terms with the apparently conflicting demands of the spirit of cooperation inherent in QWL activities and the adversarialism which has been characteristic of their more traditional roles in collective bargaining.

When taken together, the editors feel that the two issues of *FOCUS* present the readers with a good view of the present state of QWL's development in the Ontario environment. The picture which emerges is one of significant progress, although it is obvious that many challenges remain, not least of which is how to diffuse QWL, and encourage more firms and unions to participate in such activities. There is a slowly developing realization that QWL assists labour and management in identifying and promoting areas of common interest. While the specific objectives of each within these areas may differ, there is considerable room to move in a tandem. Based on the experience of both management and union representatives, as reflected in the interviews, there are grounds to believe that the cautious beginnings that have been made are becoming more firmly rooted as a real and enduring feature of the Ontario landscape.

Joint union-management involvement in QWL on the level of the enterprise can also be seen as a specific component in a much larger development. I am referring here to emerging consultative initiatives at the broader societal level in which business, labour and government are beginning to engage in the process of defining and examining a broader range of social and economic issues.

For me as Executive Director, these first six years have been an exciting adventure. Like the participants in projects — labour and management — I find the experience alternates between the anxiety and exhilaration. What has encouraged me is the readiness of both sides to be open-minded; to get involved deeply, and, when necessary to get their hands dirty. Risk-taking is never easy, but without it, courageous developments of the sort described in this issue would be impossible.

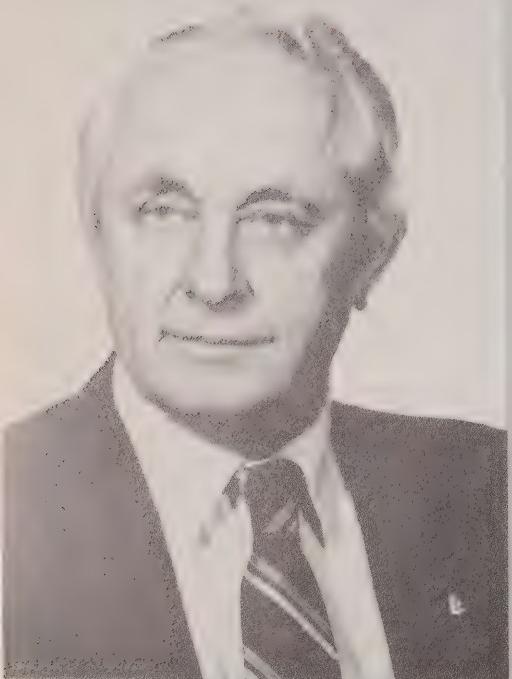
FORUM

A lot of people have taken the plunge into the stormy waters of the QWL debate.

But a small group of unionists are taking the lead in navigating the seas and charting a course.

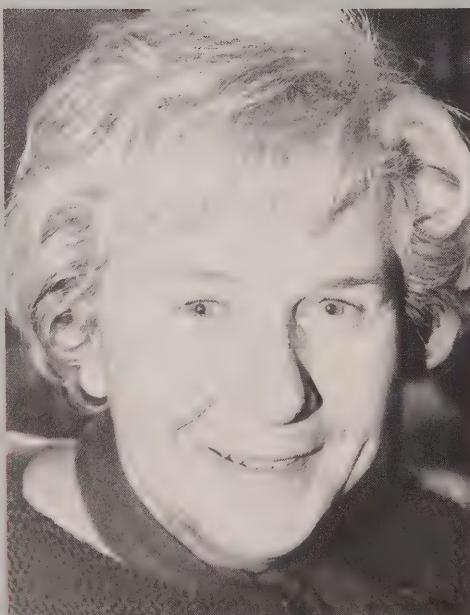
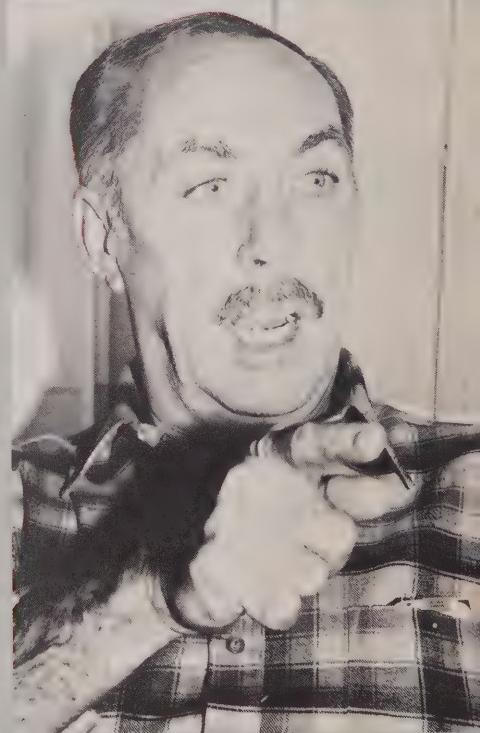
"We've got to start at the shop floor"

"I'm not worried about losing any militancy"
Ray Wakeman,
President,
Local 200,
U.A.W.



"When we ask the workers to stand up, we mean on their feet, not ours"

Neil Reimer,
National Director, E.C.W.U.



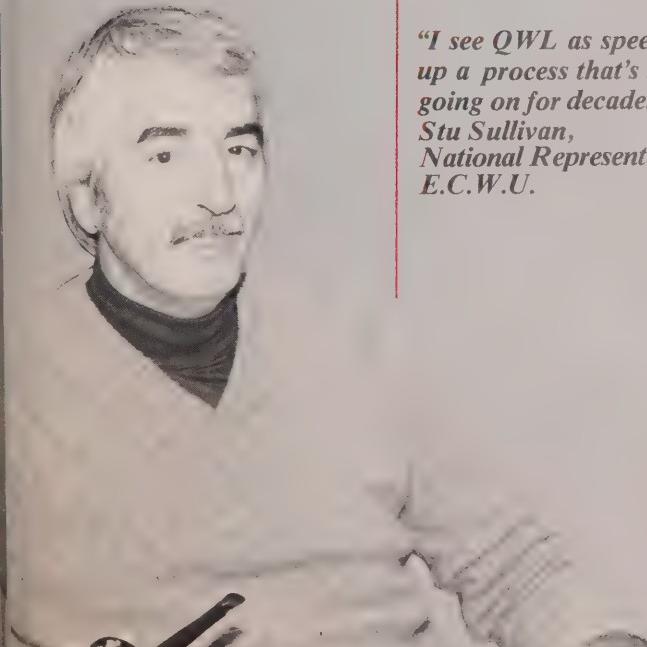
"The fear that you will be crucified for talking union is gone"
Gwynne Hyland,
Treasurer,
Local 516,
O.P.S.E.U.

Unionists who are actually putting their ideas into practice know that bread and roses are one thing; a bed of roses is quite another.



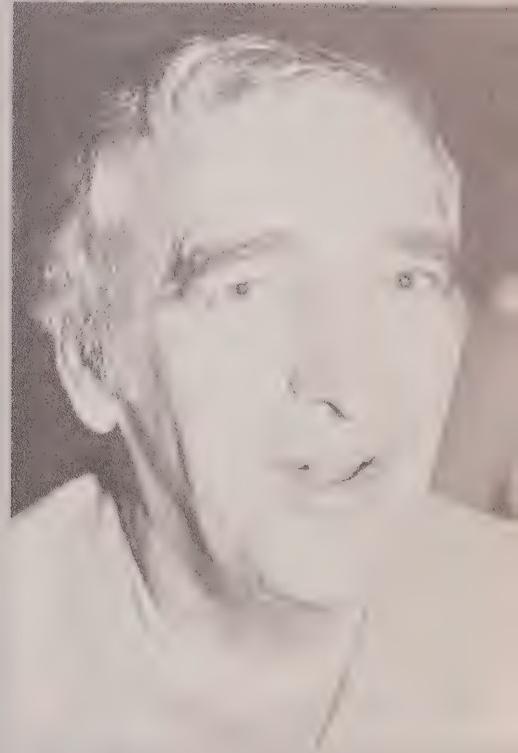
They face real opportunities, real challenges and real problems.

"It's natural for us to move into self-management at work"
**Judy McKibbon,
Chief Steward,
Local 800, E.C.W.U.**



"I see QWL as speeding up a process that's been going on for decades"
**Stu Sullivan,
National Representative,
E.C.W.U.**

In this issue of *QWL Focus*, they talk frankly about the hopes, frustrations and lessons of their experience.



"I think it makes us stronger, because we involve more people"
**Ken Ashton,
Vice-president,
Local 13173, U.S.W.A.**

"QWL could help do away with over-supervision, and direct attention to real problems"

Interview with Dave Patterson,
Director District 6, United Steel
Workers of America

Labour relations in this country are a test of strength. Who can bleed the most and still survive? Everything's based on power. We're still using 19th century approaches to 21st century problems. We have a computerized, pushbutton technology, but in terms of attitudes about workers, we step back in time every day we go to work.

When you look at the practices of some companies, I can't fault some unionists for being down on QWL. I used to be poisoned against QWL myself, from my experience in mining.

But when I was elected District Director, people explained to me that there were some places where it could work. And I don't mean places where they use QWL as a buzzword for productivity, but do nothing to increase workers' rights. There has to be respect for the union and the workers, and there has to be real dialogue.

The bosses on Bay Street sit in their plush 54th floor offices while some miner is paying their wages, slugging his guts out at the 5400 foot level underground. That's not QWL.

Miners already know about autonomous work groups. Some boss pushing a pencil just doesn't know the first thing about what miners do. Workers make decisions because they're in situations where management can't check everything out. You might not see a supervisor for hours, but you have to make decisions on the spot. There's no second-guessing, no stopping the line. You make a mistake, you can kill yourself and everyone around you. Imagine working in an office where the walls could collapse at any point if someone made a mistake. The companies depend on miners making the right decisions.

Miners already know about working on a range of tasks, about finishing what they start. Old miners tell you right away that the guy who drills a round has to wire it, load it and blast it. You do all these things a certain way, depending on how you want the ground to break.

Miners know about autonomy and decision-making and task



Dave Patterson, Director District 6 United Steelworkers of America (left), underground with his teamleader at Inco. 'Miners know about autonomy' but, he complains, they 'have no right to be involved upstairs where everything's decided.'

completion. But that's not sufficient for QWL. The difference is — those miners have no right to be involved upstairs where everything's decided.

Engineers do the prints. They come down and say: 'here's your print. Follow it.' Sometimes when I run into some bad ground in a drift, I'd like to call an engineer down and tell him that I'm not blasting through a mudseam because I don't want to be crushed by falling ground. Right now, we don't have that right. We just have the right to refuse unsafe work. Usually, we don't even see the engineer, let alone have the right to walk off the job to talk to him. We need to be involved in that kind of planning. Whenever we're opening a new cut, the whole crew should sit down with the engineer and work out the plan. That's part of QWL.

Take equipment design. We need input into the design of workboots, hats, gloves, everything. For instance, I favour a helmet that covers the entire head. Astronauts, race-car drivers and bikers wear them, even though they're not worried about anything falling out of the sky. The head's one part of the body that doesn't mend well once it's been crushed, and we need proper protection.

Take lighting. The general public wouldn't put up with freeways that had no lights. People panic in the dark. At home, I don't stumble around in the dark to find the bathroom. I turn on the lights. But underground, we work by the light from caplamps. It's not safe. After years of groping in the dark, miners lose their peripheral vision and develop cataracts. They lose their sense of height and depth, and they come to rely on instincts rather than actual conditions when they make a decision that could affect their lives.

Why should we have to put up with standards like these that would never be accepted in offices? We shouldn't have to negotiate improvements like that. That should be part of life.

Take investment policy and production planning. Working underground, you don't have much time to think about questions of corporate structure. But when I was president of a mining local, we used to converge on the shareholders' meeting and demand representation. All the money the company was losing overseas was borne on our backs. But it was costing our jobs. In a non-renewable resource industry, the workers and community have a lot

more invested than shareholders. They've sunk roots in a one-industry town. They can't just pick up and set up shop elsewhere. They have to have input in those kinds of decisions.

Here's the situation I can't figure out. The company entrusts a worker with a six million dollar hoist. One mistake, and he can kill 48 people. But when it comes time to make decisions about the workplace, he has to be supervised. Someone has to follow him around to check his timecard. He has no say as to where the lunchrooms go, where the washrooms go, or how they're maintained. I'll tell you how crazy it is. There are people who say: 'put your glasses on, put your gloves on.' But they don't talk about shoring up loose rock. QWL could help do away with that over-supervision, and direct attention to real problems.

The Steelworkers have a policy that QWL should be part of the bargaining process. That way, it's part of an employee's rights, and the employer has to live by it.

That doesn't mean that everything in QWL can be negotiated. You can't negotiate an attitude. But you can negotiate a term of reference that both

parties will live by. Even though Employee Assistance Programs or family counselling programs aren't covered in a contract, there can be letters of understanding from the company and union president. They can spell out the program and the people who will jointly run it, and still leave it open how a particular person will be counselled.

It's time we started addressing some of society's big problems.

There's a real need to change people's attitudes to work, family and community. Workers are subject to terrible conditioning. A guy who works on an assembly line, and gets a part shoved to him every 30 seconds, doesn't talk to anyone all day long. He goes home to his family, and he's withdrawn. He treats everything like those parts — at arm's length.

We could be heading into a bad scenario. We're looking at a generation that's being denied any chance of a job. Right now they're passive. You see them standing on the sidewalks during peace marches. 'I won't go to war,' they say. That's right, the war will go to them. But what are any of us doing about that?

One of these days, they're going to take us on. They'll be bitter and frustrated, and I can't blame them. So anyone who has a kid right now better ask why they're sitting back and doing nothing.

Another scenario is possible. We could start recognizing the problem. We could redraft the work ethic to provide full employment, a shorter workweek, educational funds and pension plans that allow people to switch jobs at mid-life.

QWL is one part of that scenario. If people were given more rights on the job, a better understanding of how corporations run and where the power structure is, they would know the game rules and they could play the game more effectively. Instead of arguing about obvious needs like daycare and pensions and collective bargaining rights, we could be concentrating on more complex issues that will determine the future, like the European unions do.

That scenario is a lot more attractive for me to explain to my daughter. So that's what I'm working on.



Underground ore movement

"I think it makes us stronger, because we involve more people"

Ken Ashton: In 1978, we had a seven-week strike where health and safety was a big issue. We had members dying from cancer but we were stone-walled at every turn. Who would take responsibility — the Provincial Government, the Federal Government or the Atomic Energy Control Board? We felt like a bouncing ball.

We had problems getting information from the company. They didn't trust us. We didn't believe them. There was no talk, no effort at problem-solving. We were just trying to knock the hell out of each other.

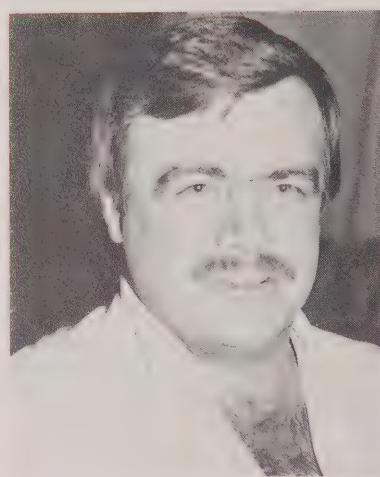
After the strike, the company asked us to go with them to an Intergroup Conference on Problem-Solving. I was suspicious. I couldn't see how all of a sudden the company was going to roll out the magic carpet for us to play with, and not be looking for



something in return. We said 'first, you've got to take out the damn punchclocks. What are we, a bunch of cattle in a line-up? If you want to talk about trust, that doesn't put much trust in the employees.' Management agreed to make these changes, so we went to the conference.

Neil Smith: I was a steward, and was involved in a couple of picket-line skirmishes during the 1978 strike. I think that's one reason why I was asked to go to the Intergroup Conference — to get my differences out on the table. It turned into a two-day bitch session where we got a lot of problems off our chests. We couldn't go any place but up.

And that's where it all began. That broke the ice. We learned how to brainstorm, how to define a problem



Holberg

Before we were just running union meetings, says Eldorado Resources union president, Neil Smith. 'Now we are more involved, even in shaping company policies.'

from different points of view, and how to work it through to get an agreement both sides can live with. It was the first time any of us had to deal with anything like that.

When I first got involved in the labour movement about 15 years ago, it was just 'fight, fight, fight.' I still fight, but now I spend more time putting up a good argument.

Last year, we had a union meeting where a member proposed that we



'I wasn't involved for over a year because of my suspicions,' claims U.S.W. local 13173 vice-president Ken Ashton, 'but my suspicions have changed since I have seen so many improvements.'

Interview with Ken Ashton and Neil Smith, union representatives at Eldorado Resources

throw out QWL. We started rewinding, to see what we had done over three years. We got rid of the punchclocks. We got ten and twelve hour shifts, with three days on, three days off or four days on, four days off. Before, we were never at home, had no time for our family — always working split shifts, seven days at a time.

It helped us deal with a layoff. Before, we'd tried to get rid of outside contractors through collective bargaining but weren't successful. When we faced a lay-off, we used our problem-solving techniques, and convinced the company to save our jobs by doing more of the contract work ourselves.

The vote was 99.9 percent in favour of QWL. That vote made us stronger. If we hadn't had that vote, and everything was going along smoothly, people would wonder: 'what's going on behind closed doors?'



Ashton: I wasn't involved for over a year because of my suspicions. I am still suspicious, but my suspicions have changed since I have seen so many improvements.

Let's take a simple case of stockroom requisitions. Before, if you wanted a stupid pair of 75 cent gloves, you had to find a foreman to sign for them. Meanwhile, you're operating equipment worth thousands of dollars and you're the only one making decisions on it. Now we do our own requisitions, and work orders too.

Then there's our non-punitive disciplinary policy. Before, the fore-



Worker at the Eldorado nuclear refinery at Port Hope. 'Before, if you wanted a stupid pair of 75 cent gloves, you had to find a foreman to sign for them,' recalls Ashton. 'Meanwhile, you're operating equipment worth thousands of dollars and you're the only one making decisions on it.'

man just passed you a letter suspending you without pay. No discussion, no conversation, just punishment. Now, serious discipline cases are suspended for a day *with* pay. And the foreman has to deal with the person and try to straighten things out. That's the purpose of the system — to straighten out the problem, not to punish. The steward is present, in case of a personality clash or favoritism — some foremen let one guy get away with something but not the other. And in problem cases, such as alcoholism, there is joint counseling by union and management.

Unions and their members can profit from participation in a QWL program, but only when the framework of the program has been defined in a union-management agreement and when workers themselves have a clear idea of what they expect to gain from participation.

What the union hopes to gain from my particular QWL program will depend upon the nature of the program in that workplace. In broad terms, we hope to gain for our members a greater degree of control over work routines, schedules and other factors which are determined exclusively by the employer, and

But the union has nothing to do with discipline itself. We don't want that yet. The workers might be too harsh on themselves. I think it would take away from our solidarity and create hard feelings.

The collective agreement and QWL have to be kept totally separate. We don't try to mix the two. We have the 40 hour week in our contract, but we've worked out the shift schedule through QWL. Common issues that face a large number of people need to be covered in the collective agreement. But 'fringe' issues that

which have a strong influence on the individual employee's satisfaction on the job.

The goal of union participation in QWL is thus to gain a greater degree of control for our members over their daily working lives without sacrificing the hard-won rights and protection which can only be guaranteed by collective bargaining. QWL is not a substitute for collective bargaining; rather it is an addition to it.

United Steelworkers of America,
District 6
Towards a Trade Union QWL
Agenda

apply to small groups or particular ways of doing things don't need a formal agreement to get resolved.

Working on those kinds of issues involves a lot of people.

Some people say that QWL undermines the union. I think it makes us stronger, because we involve more people. For instance, we have 35 people involved in a task force to design the new plant which will be run by self-regulating teams. Before, we would have just had a Co-operative Wage Study committee look at the jobs after they were designed, and set a rate.

Smith: Our union executive spends a lot more time on union business than ever before. Before we were just running the union and union meetings. Now we are more involved, even in shaping company policies. We have three meetings a week on average.

I am satisfied with the way things are going at Port Hope. But I'd like to get rid of the government, and its 6 and 5 program. When they take away your bargaining rights, it puts an awful strain on a union.

"All of a sudden, everything was going to change. I called it re-disorganization"

Garry Lenehan: Working in a maximum security psychiatric hospital has got to be one of the most stressful jobs going. After ten years, you're just burnt out. That's the aspect of our working life that led us to QWL.

Let me give you an idea. There are some violent patients on almost every ward. Every time you open the door, you have to be prepared for the worst. At first you think it's really crazy. Then it gets to be part of your daily working routine. But you never get used to it.

Bill Weeks: You're fighting your normal reactions all day. Lots of our patients have committed crimes that would disgust most people, turn their stomachs. But we have to be sympathetic and understanding, and help them through their problems. We have to be compassionate when the normal human reaction is to detest them. We have to suppress our feelings, but where do you release them?

Yet there is no turnover of staff. Those who make it through the first

few months stay on until they die or retire. Maybe it's like the Vietnam veteran syndrome — you just get addicted to all that tension.

Lenehan: The tension builds up and you can't help but take the worries of the job back home with you. That's what's killing us.

I did a 20 year study of our staff. Of 91 attendants hired in 1959, 46 had died by 1979, mostly from heart attacks and some from suicides.

So I figured there were two ways to go. Either we could get early retirement. Or we could improve the managerial structure and thus reduce stress from that end.

I thought under QWL we could sit down and deal with the problems of employees on the front line. I felt that QWL could let us take back the initiative, rather than letting the patients and the whole bureaucracy — the Ombudsman, advocacy groups, the judicial system, politicians on both sides of the House, and so on — do the thinking for us. So I approached management in 1981 and

Interview with Garry Lenehan and Bill Weeks, union representatives at Penetanguishene Mental Health Centre

they said: 'We have been through some hard times, so let's try it.'

Weeks: Until QWL, union and management were at loggerheads. The whole set up was militaristic. Do as you are told, or else. Everything was regulated, including moustaches.

Management took themselves very seriously. They didn't give an inch. Neither did the union. It became quite a game of one-upmanship. Maybe that distracted us. You could displace your stress from the job onto management, and they did the same to us. It became quite a sport.

Lenehan: The only thing defending us was the union. The patients are safeguarded — by ombudsmen, lawyers, patient advocates, the media. But we were stuck in an antiquated management system: do your job or get out. We never got told if we did anything right. We just got told off when there was something wrong.

Weeks: Stress is our number one problem, but it is a very abstract concept to deal with. We thought QWL could help us find ways to reduce some of the pressure.

Here's one problem. We have no place to escape for a real break during the day. We can't leave the ward without leaving it shorthanded. Even when we go for coffee or lunch, the patients and their problems are always around us.

We thought a separate staff lunch room would offer one place to escape. But we couldn't get that through collective bargaining — we would have to go off-site and we would have to make up the time lost in travel. So we have been trying to get that in the more problem-solving approach of QWL. We are still working on that.

Our biggest gain is the 12 hour shift. We used to have to work eight days, followed by two days off. Then we'd work seven days, followed by time off. It shot hell out of our family life, and the work stretch was just too long.

We'd talked about a 12 hour shift before, but QWL gave us the momentum to get it in. Now we work



Penetang

'Stress is our number one problem, but it is a very abstract concept to deal with,' claims Bill Weeks, chief steward of OPSEU local 307 at the Penetanguishene Mental Health Centre. The union has tried to deal with stress-related problems through QWL.

two days on, two days off, three days on, two days off. The entire staff thinks it's about the greatest thing since sliced bread.

In terms of stress, the hardest thing is getting your foot in the door. Then you have got it beat; you just fit into the system. Whether you work eight or 12 hours is just about irrelevant. It's also better for the patients. We are able to cope with them better and be more patient when we know it's only two more days to go before a break. Before we thought: 'oh god, seven more days of screaming, shouting and water throwing.'

Lenehan: The first year of QWL, we had a tremendous amount of support. All of a sudden, everything was going



Penetang

'Every time you open the door, you have to be prepared for the worst,' claims local union president Garry Lenehan. 'You never get used to it. That's what's killing us,' he says.

to change. Attendants were giving their ideas. I called it re-disorganization. But management is definitely paying more attention to the problems of employees now.

Right now we are in a bit of a rut. It's easier to deal with patients' problems than staff problems, so we have some tension over that. We need a lot more communication among ourselves, and with management. Looking back, I'd say we should have spent a lot more time on our philosophy statement, so that we could all start with a clear sense of objectives.

QWL hasn't undermined the grievance procedure. If anything, it's strengthened it. We've always tried to find a solution before we go to arbitration, but QWL doesn't interfere with the grievance procedure.

Weeks: QWL has the potential to lessen the number of grievances because a lot of problems can be identified and resolved through QWL procedures.

It's a lot more challenging for the stewards. They try to see a problem from management's point of view, at the same time that managers try to see a problem from our point of view. You've got to be pretty flexible. One minute, you're talking with a manager at a QWL meeting; the next, you're slapping a grievance against him.

Lenehan: As a unionist, you have to put yourself on the line. Managers on the QWL steering committee are all for QWL, but some of the lower managers aren't. When they cut across the spirit of QWL, it hurts us. The guys figure that since we are promoting QWL, anything stupid that management does makes QWL look like hypocrisy.

QWL by itself doesn't make problems go away. But we've definitely made some gains. And we're going to keep plugging away at the problems.

You know, the whole world around us is changing. Look at how much more open the schools are. But these changes haven't touched the workplace very much. You have got to change that system. And that's what we are trying to do with QWL, for the benefit of everyone.

Penetang Mental Health Centre

The Penetanguishene Mental Health Centre is one of the largest of the ten provincial psychiatric hospitals in Ontario. Its Regional Division, with six in-patient units and a Community Services Team, serves an area in Central Ontario with a permanent population of 500,000 people, from Parry Sound to Beaverton, Orangeville to Owen Sound.

But the Centre is best known in Canada and abroad for the Oak Ridge Division. With beds for 292 men, it is the only maximum security psychiatric unit in Ontario, and was the first of its kind in Canada when it opened in 1933.

The main criteria for admission to Oak Ridge is dangerousness — the patient poses a physical threat to himself or others. About half the patients at Oak Ridge come from the courts, having been found not guilty of a crime by reason of insanity, or unfit to stand trial. The courts also send patients to Oak Ridge for 30 or 60 days on warrants of remand for assessment in the facility's forensic unit.

The other half of the patients at Oak Ridge are involuntary under the Mental Health Act. They have been transferred in from regional hospitals across the province where they have been found unmanageable in less secure settings. They may be highly suicidal, or they may have been seriously assaultive to other patients and/or staff at those facilities. Most of the patients — about two-thirds in 1983 — have been diagnosed psychotic, with the bulk of the remainder suffering from a personality disorder.

A major program and structural review of the facility is currently underway, with union, management and professional staff all directly involved in the process.

"The whole organization and atmosphere of our office has changed with QWL"

Gord North: Our local tried to use QWL as a sledgehammer to hit management inside their heads. We used it as a tool to get better management-labour relations, to work out a lot of problems that normally become grievances. Prior to QWL, our approach was 'stick it in your ear! We'll fight it at the Grievance Settlement Board.' Once we realized that some managers were willing to be more co-operative, we sat down and negotiated.

The director and manager of the Revenue department thought QWL was the coming thing, so we made sure a union steward was elected and involved. We wanted the union properly represented. If the people in that area didn't have a steward, they would be management dupes, and not ready for QWL.

Gwynne Hyland: The whole organization and atmosphere of our office has changed with QWL.

Before, the office was very, very quiet. Partitions were everywhere. Everyone stuck to their one job. If anyone was talking, the manager would say

'there's too much noise out here.' If anyone laughed, that was a cardinal sin.

Four people sat at one huge table, opened the mail and put it in piles. Then someone took those piles and taped them. Then somebody else recorded the information. And then three people put them through the cash register.

I was just a glamorized filing clerk. We fished through oodles of files to clip invoices to cheques, and then refiled everything alphabetically. Filing invoices. This is what I always did. Nobody stopped to ask why. Maybe we were too busy filing to think.

Through QWL, we started analyzing our jobs and asking questions. That's when we found out that our computer system, introduced in 1967, was being double-checked for accuracy. In the launching period we did a parallel run manually, but no-one said stop! We kept doing it for 15 years. Making sure the computer was adding right. Writing information in ledgers or purging invoices when the material was already on the computer print-out. Now we have decided all that is not necessary. It's cut our work in half, and gives us time for personal contact with our clients, and time to trace people who are late in their payments.

Our workers figured this out themselves. Then we started to redesign the office, physically and organizationally. We took down the partitions. We started to talk and no-one asked us to be quiet. We set up the files in a central and accessible place.

Then we arranged the work so that we could do it in groups of four, and not get stuck in one tedious job. Nobody liked doing batching, which went from being extremely intense to just waiting, so we split it up, so that everyone could do a bit of everything. Now each group of four looks after an entire operation, including deposits and accounting, which was previously done by a supervisor.

Interview with Gwynne Hyland and Gord North, union representatives at Consumer and Commercial Relations.

Two weeks ago we had a session on writing job specifications. Our new roles and responsibility for decision-making can be written into a job specification which hopefully will lead to a higher rating. For senior people (in age, that is) like myself, it means a lot more self-satisfaction. I feel like I'm finally doing the job I am paid for. And it's ideal for young people. If they are looking for another job, they can say they have had responsibility and decision-making.

The whole changeover shows up in our absenteeism report. A year ago, we had an absenteeism rate of 3.4 percent. Now it's down to 0.6 percent. People are interested in what's going on. They are not just putting a little doo-dab on a piece of paper and passing it on. They see the work right through and want to be there to see the results.

North: QWL got more people enthused about union activity too, because they saw the union actually doing something with management. We are working as a local to make it interesting. Every meeting our agenda features a report from the QWL committee, and we are educating people to prepare themselves for it.



Gwynne Hyland, steward and treasurer of local 516, at the Ministry of Consumer and Commercial Relations.



Gord North, president OPSEU local 516. 'The whole union has to be involved in this, from top to bottom.'



A work team at Ministry of Consumer and Commercial Relations. Workers 'are not just putting a little doo-dab on a piece of paper and passing it on,' says Hyland. 'They see the work right through.'

The whole union has to be involved in this, from top to bottom. A top union person has to be on the steering committee, because otherwise we're missing a senior position on the union side when management has already started to 'build-in' a QWL function.

Management could run away with one end of the process. I disagree totally with that. If the union starts losing control, I will start throwing sledgehammers in every direction.

Hyland: When we first started QWL, the union was known in our office. I went to meetings and reported back, but that was all that people wanted.

Office staff are not usually union-oriented, and haven't had much involvement. In the places I worked before, managers were pretty nasty about it, and you didn't talk union business openly. I remember that you just didn't say you were a steward. You just kept quiet and hoped that everyone else did. If you were on the executive, you certainly didn't brag about it.

Now people see the union and management talking, and the fear that you will be crucified for talking union is gone. The stigma has dissolved, and people aren't afraid to go to meetings. And they want to come to meetings and take union courses so that they

can be sure of being consistent with union policy.

When we first started with QWL, our site didn't even have a steward. I was elected steward, and now I am treasurer of the whole local. Another of our staff chairs the health and safety committee, and another is a trustee. When there's a union meeting, about three-quarters of our staff turns out. They want to get involved, they are becoming aware, and asking questions.

North: I can see some potential problems with QWL. Some of the lines between union and management become blurred, and I still wonder what will happen if management pulls the rug out. We have a shelter agreement guaranteeing job security, but what if management becomes unilateral? Our QWL project found out that ten percent of the work was sheer duplication. What will stop them from laying people off? Especially a government that can legislate any agreement out of existence? That's a touchy area for me.

My experience is that QWL presents a perfect opportunity for both management and union. Unions want to get involved in a real QWL process, but I don't think management takes it seriously. We have bent over backward for QWL, but a lot of government managers

haven't even informed themselves. Look at the time QWL has been in existence, but only two sites in the Ontario government have tried it. To me, that's ludicrous.

Hyland: Our managers have been very good. They are almost like co-workers. But it is a new role. They have something to lose, their official power and rules. They need to be educated, and it is us union people that have to do it.

The Ontario Public Service Employees Union and the Government of Ontario have resolved to develop experimental projects in which the employees and managers will endeavour to effect meaningful changes in their work environment, and to create a climate that will enhance a positive relationship in all aspects of their work.

The primary goal of this experiment is to provide a work environment in which the employees share the right of determining the best means to perform the tasks at hand but not the determination of the tasks to be performed.

Workplace innovation may result in improvements in the workplace that benefit both employees and the organization. For employees it is anticipated that effectiveness will be improved. Increased job satisfaction may have many benefits including that of increased productivity.

It is the intention that in addition to increased job satisfaction whatever other benefits that may accrue as a result of this experiment will be equitably shared with the employees involved. The parties will meet from time to time in the course of the experiment to determine how this will be accomplished. The parties agree that there will be no layoffs because of Quality of Worklife Projects.

Participation in an experimental project will be determined after both employees and managers have had an opportunity to make an informed choice.

S. O'Flynn
President
Ontario Public Service
Employees Union
G.H. Waldrum
Chairman
Civil Service Commission
Government of Ontario

"I would like to give those guys credit for keeping the plant going"

This whole trend toward Employee Involvement and QWL is new for us. We're known as a tough union with a militant tradition filled with historic strikes.

Whenever we sat across the table, our attitude was — 'they're out to shaft us, and we're going to get them.'

For us to get into an environment where we are talking with managers about problems and productivity — this is something new to us. A lot of us are suspicious. Are the companies just doing this because of the problems they face with the downturn? Will they pay as much attention when the economy turns around? That's when the real test will come.

You can't move too fast on these things. When you do something in the plant, the workers have to do it, not their leaders. They have to be convinced that they will benefit from all their work.

If management tries to disrupt the union or exercise their management rights to force us into something, then any possibility of co-operation disappears, and we're back to fighting. I don't think that should be used as a threat, but it's a reality. The guys will just say — 'why should I use my brains to solve problems if I get shafted?'

The key point in all these programs is trust. Unions don't trust management. We have been burnt too often. We can't change overnight. The onus is on the corporations to win that trust. They have to move first. They have to convince us they have changed.

I'll give you an example. In 1982, we negotiated an experiment to remove the punchclocks from a small plant with 60 workers. It's worked out well. No complaints from management. The men love it — makes them feel that they're not slaves in a lineup. So I asked why we weren't extending the experiment. Do we have to wait until 1984 negotiations before we move again? They told me we'd have to wait. That's crap, that's the old thinking. They have to show us that they've changed all that.

The same with other issues. We have been fighting to get cafeterias and first aid centres opened on weekends. Why do we have to argue about that every bargaining round? The company should take care of the guys. It's crazy that we are still arguing about these kinds of issues.

In some ways, a lot of the new concerns are things we have pushed for years, long before anyone heard of QWL or EI. Only now the company is listening to us. You know, it used to be a capital crime to stop the assembly line. You got fired for that. Now, with the competition from imports, the companies finally realize that they can't just rush those cars off the line. That's turned their attention to ways of making a better product.



Interview with Ray Wakeman and Dick Poirier, union representatives at Ford, Windsor

A lot of these changes can also improve our working life. We have a committee on energy costs that got the windows sealed, and that enhances the building. Another team figured out how to stop oil from dripping off a machine onto the floor. That saved the company money, and made the floor a lot safer.

In one plant, the workers took on the problems in a two-story high punch press that made oil pan covers. They caught an error that the engineers should have spotted long ago, and reduced the scrap rate tremendously. That group of 60 men has been given credit for keeping that operation going, and they are now back at full force with 1200 workers. I'm not sure if that's how the company made its decision, but I would like to give those guys credit for keeping the plant going.

I'm not worried about losing any militancy. We're not giving an inch on concessions. There is no change in the role of stewards. We are very careful that their role doesn't get undermined by an EI committee. If an EI group gets something that the steward couldn't get — like fixing up a locker room, for instance — then the steward looks weak. We tell the company not to let that happen or we'll pull out. They can't use EI groups to solve problems that should be taken up by the union.

The same goes for job classifications. Management still has all its rights in the collective agreement, and we won't give up the protection of job classifications we have won over the years.

So we are being very careful about all this. Employee involvement sounds great in theory. But it's really built on sand unless the company makes some structural changes to cement it in. The company has to improve our daily life in the plant. Up until now, they haven't really addressed that. But they better hurry.

'A lot of the new concerns are things we have pushed for years, long before anyone heard of QWL,' claims UAW local 200 president Ray Wakeman.



Ford Windsor Casting Plant

Dick Poirier, union chairman,
Windsor Casting Plant.

I look at QWL from the point of view of my local. In 1980, we had a plant that was slated to be shut down.

We had nothing going for us. After sitting down and talking with management about Employee Involvement, we have now got a plant working at full production. If it takes QWL to make that happen, then we intend to continue.

Before we launched a QWL project, management and union lived and died by the adversarial system. For management, everything was a number count. 'We've got to get our production out. The worker? Who cares?' So we just went after each other. When we went to a meeting, we went for the throat. Can I get the jump on you? Can you outholler me? We never even sat down and discussed a problem. We just went after each other.

Now we can sit down, put the problem on the table, see where we are at, and what the solutions are. Through the training that some of the foremen and union reps have got, they can look at a problem and work out a viable alternative. They focus on that, rather than who's going to fool who or who's going to outholler who.

That kind of program can't work unless both parties endorse it and are involved. If management tries to run without union help, they're just wasting their time. Without union support, the committees won't be able to come up with anything.

We have never had a problem on that score. We started off with a six person steering committee — the plant manager and two appointees, with me and two union appointees. That's how

it started, and it's been equal ever since.

QWL has put the union in a more advantageous position.

Because now, I am privy to more information about the plant. I know a lot more, and I have got more input. I can tell you how much the plant made this year, how many people we have, and where we're headed. I never knew any of that before.

In the past, management would come to me and say 'we're changing this line to these hours.' Now I have a voice in planning and scheduling meetings. They ask my opinion, and I say 'let's talk to the guys and figure it out.' I will give you a little example: people on one shift had a problem because they had to work past the bank's closing time on Friday. Before, management would've tried to ram that down our throat. Now they ask for our opinion and, we worked out a way around the problem.

It hasn't made us less militant and it hasn't affected collective bargaining. Seniority and job classifications are etched in stone in the collective agreement. They will never be touched by QWL or anything. The stewards' basic role hasn't changed. They administer the agreement. But they also have input in the projects.

It's a very fragile process and you have to be patient. The critics are out there, and a lot of our members are skeptical. They are standing back to see if it works or not. And there's always that ten percent that I call seagulls — if they're not squawking, they're crapping.

The structure of work established by management is designed to make of the workers an adjunct to the tool rather than its master. This, coupled with the authoritarian climate of the workplace, robs the worker of her/his dignity as an adult human being. This belies the democratic heritage we cherish as citizens in a society rooted in democratic values.

Essential to the UAW's purpose is to afford the opportunity for workers to master their work environment; to achieve not only improvement in their economic status but, of equal importance, to gain from their labors a greater measure of dignity, of self-fulfillment and self-worth.

Preamble to UAW Constitution

But it's strengthened my role and the union's role. I am now able to go to management on any issue and say 'we have a problem here, what are we going to do about it?'

I don't think we can lose. I always felt bad that our members never had the chance to express themselves. Now they do, and people get involved. If they feel strongly about a problem in their area, and if they can accomplish what they set out to do, then they feel good about it. Who's better to do the job than the people who work on it, and can tell us what's wrong with the damn thing? If a guy comes to work, and feels his job means something regardless of the numbers at the end of the day, then that guy feels good about himself. I'd like to see the whole plant involved, because it means that people have a chance to guide their own destiny.



Windsor Casting Plant

"It's a way to move in the direction of self-management"



Judy McKibbon: One of the things you'll notice here is that the women are overrepresented in the union. There's only five women in the plant, but two of us are on the union executive. We probably find QWL a bit easier, because we have already overcome a lot of struggles to get into non-traditional jobs. We have already made life decisions to take control of our lives, so it's natural for us to move into self-management at work.

McBean: The QWL project here started before anyone was even hired. Our staff rep and the president of another local represented the union at the early planning stages. But once we started working, we felt 'this is our baby, we've got to make it work.' It's always been a joint venture.

QWL gives and demands a lot of flexibility. Things aren't as clearcut. That might scare some unions.

QWL doesn't undermine our values, but it does keep us on our toes and put us in some awkward positions. The workteams are made up of 20 union members, and if the team

Interview with Judy McKibbon and Gary McBean, union representatives at Shell, Sarnia

makes a decision, it's hard to go back to that team with one member's grievance. There is no clearcut path, and that can cause problems. But in all but one case this year, we've been able to resolve problems at the team level. It's a lot more sensible to sort out the problem at the beginning, than to wait a year for an arbitrator to decide.

McKibbon: It's hard to be a steward in a QWL plant. It isn't the traditional 'thump the manager over the head' situation. We encourage stewards to take leadership positions on a team. If every team has a co-ordinator representing management, then we also need someone to represent the workers' side.

Management has an easier time making its presence felt because they have ultimate power. We have a more difficult time asserting our role.

We are just one party in a galaxy of parties — union, management, and seven teams. Sometimes people representing their team forget their role as unionists. And when you are sharing responsibility all the time, it's hard for the union to get the credit for achievements. That's a real problem.

But whenever it comes to the crunch, we are able to pull people together, and we have

better mechanisms than most unions to pull people together. So the union might look fragmented from day to day — moving in all directions — but that does not apply to issues of general significance. When we moved into the pay progression system, for instance, there were changes for virtually every person. By the time we had the vote, we had worked out a system that satisfied 90 percent of our members.

McBean: The pay progression system is our biggest success. Everyone can progress to the top rate, as they demonstrate their knowledge and skill. You can get the top rate on your merit, without bidding against another union member, without waiting for someone to retire. To reach the top level, you have to know six process jobs and have some facility

Judy McKibbon, chief steward of local 800 at Shell Sarnia says, 'surely we can make decisions about work.'

Gary McBean: I hated the job I had before coming here. The foreman handed out chores, and everyone got away with as much as possible. The union there was so low key, I didn't even know I had a steward for four months. We only went to the union if we were negotiating, or if we had a complaint.

When I started at Shell, I could feel an openness. Everyone was constructive. You had freedom but you had to be responsible. I figure that's a lot better way to operate than having a foreman hovering over me, double-checking me every 15 minutes. I'm a responsible person and I don't need that kind of hassle.

And as soon as I was hired, I was introduced to my steward. I heard his reports at team meetings. The union was a lot more upfront. The job started to interest me. So when he stepped down, I thought I'd give it a shot and see what it's all about. Now I'm president.



Gary McBean, president ECWU local 800 at Shell Sarnia

Holberg

at a second skill — craft, warehouse or laboratory. I think that's a lot fairer than having management classify people, and say 'one's worth more than the other' when both know the same amount. And the system makes seniority work too, because when there are layoffs the most senior people have the most experience and skill and get to stay on. It's not that way in other plants.

We have also worked out a better shift schedule that gives people more time on days and more days off to spend with their families. Plus, there is the general feeling in the plant. Everyone stops and talks. It's not like going in, and finding a place to hide from the boss.

McKibbin: QWL is more than problem-solving. It's a value system. It is taking responsibility, and saying 'we want to control our worklife.' It's a way to expand collective bargaining infinitely, to move in the direction of self-management.

We have a short collective agreement that sets out the basics, and a 'good

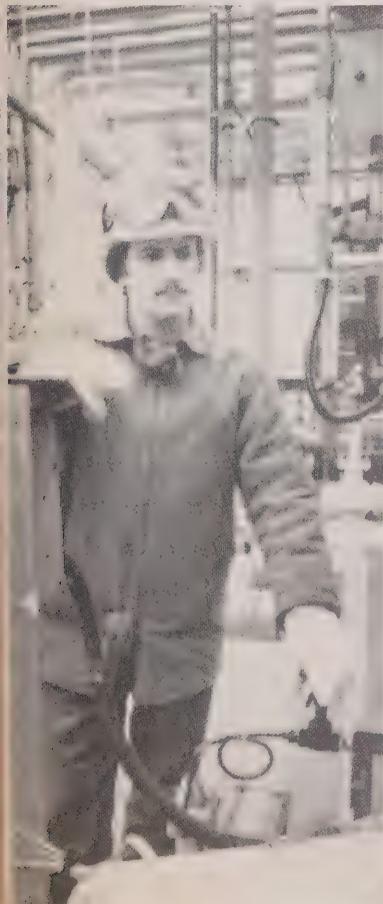
practices' handbook that can be changed from day to day. That means we can look at and deal with any problem that comes up on the floor. We don't have to restrict ourselves to legalisms and violations of the collective agreement. We can go to the company and complain if a manager's style is inconsistent with our QWL philosophy. We can approach management about the need for more job variety or elbow-room. It doesn't have to be an angry confrontation. We just refer to our good practices handbook.

If we are talking about job redesign to make our jobs more interesting, we have to be concerned about company effectiveness. That's not just a management concern. It's part of our increased responsibility for ourselves. Our livelihood is too important to leave to managers. If we leave it to them, all they do is stand over you with a whip and say 'do it faster.' But

there's a way of doing it better too, and we have something to say about that.

The company doesn't see QWL as democratisation of the workplace. I do; and if I have a mission, that's what it is. People in our plant are responsible for millions of dollars in equipment. A wrong decision in the middle of the night could blow thousands and thousands of dollars. If we can put workers in a position where they can have so much impact by pushing a button, then the least we can do is to set up a system that allows them more control. If we can make decisions at work, surely we can make decisions about work.

Right now, bosses have authority, but they are not involved in the daily operations. We should be reversing that. That's what it's all about — reducing all kinds of traditional 'management rights' to make decisions, and extending the rights and influence of those who are directly involved.



Shell



Shell

The Shell Sarnia QWL process has won international acclaim for its joint union-management involvement at all stages, its scope, and its approach to contract administration.



Shell

"QWL gives us some new opportunities and skills"

Interview with Stu Sullivan, National Representative, Energy and Chemical Workers Union

I just quit smoking yesterday, so let me explain QWL to you this way. It takes a lot of work to keep from smoking. When you're breaking one habit, you're really trying to form a new one. And it takes a long time before that becomes a habit.

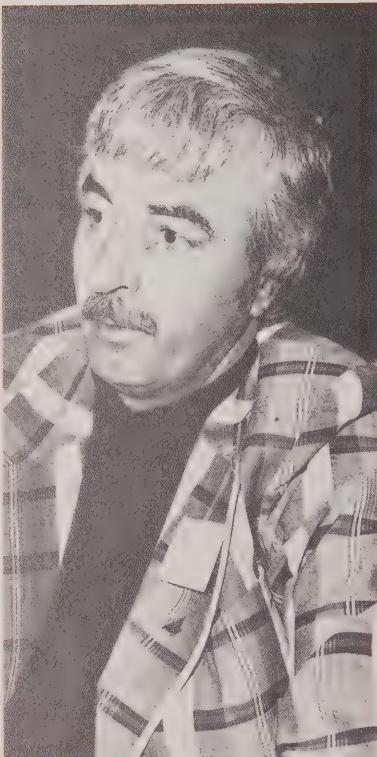
If you're talking about changing a management system — which is what QWL is all about — then you have to kick the habit of the entrenched management system. It takes a lot of energy to maintain that new direction.

And people can't turn on a dime. I was convinced for a long time that I should quit smoking. I knew it was bad but I didn't quit until yesterday. It's a slow process. You can't get people to change their habits and attitudes overnight. It takes a lot of education and proof just to convince people of change. And it may be a few days before they actually start to change.

Sometimes I think we're like the salesmen who try to sell you a television before you've got electricity in your house. A QWL program needs something to plug into. If you've been trying to kill somebody all week, it's not too likely that on Friday you can say: 'let's wipe the blood off and go for a beer.'

Before you start talking about 'work redesign,' you have to take a look at your relationship. Look at your health and safety program, which is the major joint venture of the last few years. If that's not working, then maybe you should be concentrating on that. If you can't get along on a joint health and safety committee, how in hell can you get along in QWL?

There's a number of things you have to look at before you can say you're ready to go. Is the employer willing to pick up the costs of training? Is the employer solely interested in boosting productivity? If so, the program is doomed to failure. The union has to be strong to start with, and it has to have stability. You need players on both sides that have been around for some time and have built up some mutual respect.



Stu Sullivan, national representative Energy and Chemical Workers Union. 'Does militancy mean walking out at the drop of a hat? Or does it mean that people will stand up for their rights?'

Sometimes the QWL label scares people off because they see it as something new. I see QWL as speeding up a process that's been going on for decades.

Collective bargaining is what unions are about. Our prime purpose is to win agreements that protect our members. You need your collective agreement to fall back on. But sometimes there are issues that can't be settled on a definitive basis during bargaining, because you don't have time for an in-depth study. So you develop a letter of understanding as a supplement to the collective agreement. We've all done that over the years. It's really carrying on collective bargaining for 12 months a year instead of forcing everything on to a crash basis.

Getting over the old adversary system based on fighting for survival doesn't mean we don't argue or strike. QWL doesn't mean being the best of buddies. It means you lay down some rules on how you fight, just like in a marriage. No pulling hair or throwing dishes. But there's nothing wrong with having a fight. That's how differences get aired. If I see a situation where everything is sweet and lovey-dovey, then one side or the other has caved in.

There's a world of difference between co-option and co-operation. Co-option means that you roll over and turn everything over to management. You become just another voice of management. Co-operation is when you say: 'we're equals, not subordinates. We're going to work through some areas of disagreement, but we expect you to look at our point of view at the same time we look at your point of view.'

That's how we got the Rand Formula for compulsory dues checkoff at Shell. We fought for that over 30 years, including some bitter strikes, but we couldn't get it. Then, when we were negotiating our first agreement under QWL, we said: 'if you want us to appreciate your needs, and the risk you are taking then you have to recognize the risk we are taking. To minimize them, and to ensure the survival of our union, we need the Rand Formula.' That's how we got it for the very first time.

I can't see how people can say that QWL weakens a union. In fact, QWL gives us some new opportunities and skills we've never had in traditional organizations. We can take new initiatives.

In a traditional organization, you just react; you don't shape. Often you have to wait until the contract is open before you make an effective response. By then, it may be too late. So under the traditional set-up, you either wildcat, or you let it ride.

But under QWL, we can give our members a lot more tools and opportunities to deal with problems as they arise, rather than wait for the contract to expire. Set up a task force. Take it to the steering committee. Use your problem-solving skills and training.

That's why I get annoyed with people who oppose QWL because they think it destroys militancy. I'm not sure what they mean. Does militancy mean walking out at the drop of a hat? Or does it mean that people will stand up for their rights? I say — give the workers the information and the tools. They are perfectly capable of understanding their own interests and learning how to fight for them. I have always opposed the view — whether it comes from managers or unionists — that the so called 'poor dumb workers' have to be protected.

And that brings up the new relationship between unions and their members that's made possible by

QWL. You can't deal with a new management system with an old union design.

For instance, the shop steward has a lot more authority because QWL encourages problem-solving at the shopfloor level. The steward has to be better trained and more involved.

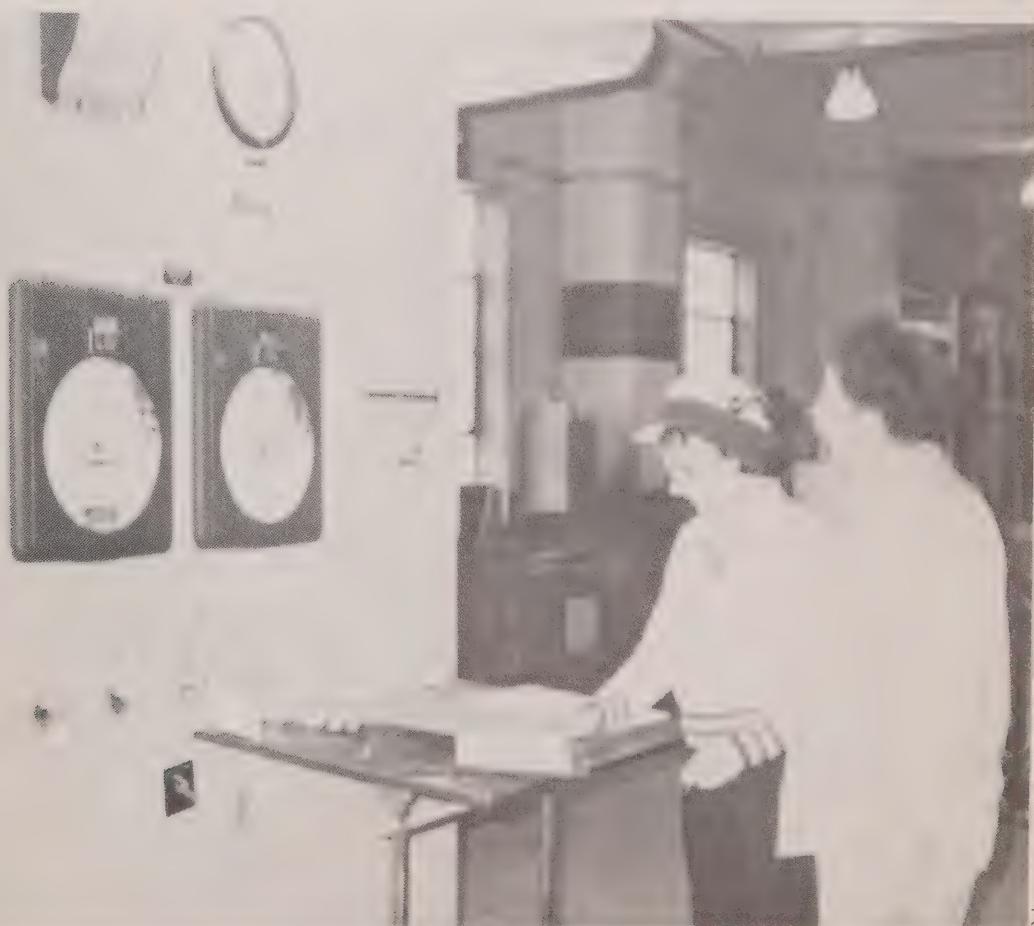
The same with our members. If we ask management to open up their decision-making powers and let workers participate in decision-making, those members will expect the same from the union. They will want some way to participate rather than just ratify an executive decision. Local 800 at Shell in Sarnia, for instance, has had more special meetings on policy than all the other locals I service put together. And that links the members tighter with the union.

You know, in the first job I had with a union, we had just won the dues checkoff. My director told me that up until then, the stewards had to go to

members every payday to collect dues and persuade them to renew their commitment to the union. There was a direct, personal contact. We lost that when we won the automatic checkoff, and we haven't built in a mechanism to replace that personal contact. If the union handles it right, a QWL program can do just that. We can develop a closer identity with our members as we start to deal with more everyday problems that people face at work.

QWL also gives us a chance to work 12 months a year for all our members.

Many union members think that all unions do is look after wages and benefits at contract time, police the agreement, and file grievances on behalf of a small minority of borderline employees who face discipline charges. But a successful QWL program can demonstrate that the union works 12 months a year to actively build a better place to work. That can be a very positive tool for unions.



Workers at Polysar in Sarnia are also involved in a QWL process. 'The steward has to be better trained and more involved,' says Sullivan.

"I wanted to establish some new issues to deal with - otherwise, we were in trouble"

In terms of my experience, QWL is just re-inventing the wheel. When I started work at the Saskatchewan Co-op Refinery in the 1940s, we had no foremen. We were all farmboys, raised to be independent. Nothing happened unless we did it. We had to look after ourselves and fix our own equipment — there were no machinists or welders to call on. As a kid of 16, I was in charge of seeding. The welfare of the family was in my hands. But nobody sat on the tractor with me to make sure I was doing it right.

That's what the environment of the refinery. But one fine day, management decided to bring in supervisors. I still remember that day. They weren't consulted, we didn't know what they were doing, and I'm still wondering why they were hired. All of sudden, I had to be watched. That's a terrible feeling when people start watching you. And that feeling has stayed with me ever since.

That human dimension is still the key to my thinking.

Why should a worker have two personalities? One for work, as controlled by foremen, plantguards, punchclocks and gates. And one in the home and community. I've always argued that workers are entitled to practice their full personality, on and off the job. It's so simple that some people can't see it. The worker shouldn't be put in a Jekyll and Hyde position, where he has to exercise two personalities and live a double life. As it is now, a worker has to be a responsible person in his family and community, but as soon as he walks through the plant gate, his every move has to be regimented by a supervisor.

A few years before we started the QWL project at Shell-Sarnia, I gave an off-the-cuff talk on the future of collective bargaining. 'Don't you think you deserve the same kind of status on your job as the teacher who moulds your kids, or the engineer that designs the bridge you drive over. Because they're trained, you say it's O.K. They have a personal involvement in their job. Don't you think you have the same right? If a teacher with a few years' training can mould your child, then a refinery worker can make gas.' The speech

made quite an impact. 'Never thought of it that way,' people said.

But the workplace is a very conservative place. It's easier to talk about no change than to talk about change. People have done things a certain way for so long, they figure — why change it? That's the nature of the work environment.

The same applies to unionists. It's easier to run a traditional union — 'we're right, you're bastards.' But I've always thought the job of the union was to make the workplace more pleasant. That's where we spend a big part of our lives, and it shouldn't be a place where you hate to be.

That's one reason why I don't like the term QWL. Because once you give something a label, people think it's a new product and want to take it off the shelf. They want to read a textbook on it. And the experts develop their own jargon, and it just complicates matters. It now has the image of siding with government, because they have a QWL Centre. Or if management suggests it, it's a management ploy. Never mind that we have been saying these things for

Interview with Neil Reimer, National Director, Energy and Chemical Workers Union

years without giving it a label. The adversarial system makes us figure — 'what do those bastards want? They must have something up their sleeves.'

I run into these conservative arguments all the time. We hear every ideological argument. Some people say that if workers take on more responsibility, the line between workers and management will be blurred. The way I look at it — if a fellow digs a ditch all his life, his focus won't be blurred. He will know that every morning he has to go out and dig a ditch. But what future is there in that? I can't see relegating 92 percent of our workforce to a non-participative life just so the lines will be clear and no-one gets confused. One answer to satisfying jobs is to allow the worker to take on more responsibility, not less. I don't believe in perpetuating present management styles and power. Our members' job security depends on production and marketing decisions of the company. Why leave those survival decisions entirely to management?

I hear rumours about the grievance system being undermined. It's true



QWL concepts 'carry over into our union operations as well,' says Neil Reimer, national director, Energy and Chemical Workers Union. The union's job, he claims in his interview, is to help workers 'become whole persons.'

that QWL can cut down the number of grievances, but that shouldn't be a problem for the union. Arbitrators rule on grievances when the relationship between the union and company has failed to resolve a problem. But QWL facilitates dialogue, and if you have that, you can prevent many grievances from occurring.

Let me be blunt. Contract language is in direct relation to the authority given to workers. If they have no authority, they need a long, elaborate contract to prevent unilateral action. But if workers have the right to make decisions on their own jobs, how can they have grievances against themselves? If you make the decisions that affect you, where's the grievance?

I don't get too worried either about the adversarial relation between unions and companies, or the effort to establish dialogue. Canada's culture is adversarial. Hockey, football, baseball — the sports we love to watch are adversarial. So are the courts. So is the marketplace, or any place where there is competition. We live in a competitive environment and there is competition between labour and capital for a fair return.

That being the situation, I thought we owed it to ourselves that we made damned sure we understood each other before we had a real confrontation. We have to establish dialogue. Canadians don't talk to one another. Neighbours in the same apartment block don't talk, let alone people from Nova Scotia and the Northwest Territories. It is a great weakness in our culture.

Let me talk a bit about how our union developed its approach. In a way, it's unique to our industry and key to our success. When I became Canadian director of the union in 1954, we were the least likely to succeed. There were at least four other unions in our jurisdiction, and we were the smallest and latest to start. Today the others are all dead, because they failed to meet the challenge. They had a sophisticated management on one hand and sophisticated workforce on the other, but a union that was just reactive. They counted on management to make mistakes, rather than giving leadership themselves.

have always maintained that to keep well paid workforce together in a union, you have to provide programs that improve their daily lives. We



Petrochemical worker at Shell Sarnia. 'To keep a well-paid workforce together in a union, you have to provide programs that improve their daily lives,' says Reimer.

have the highest industrial wage in the country. Our members don't get too excited about a five-cent increase.

They're in a position to look at new relationships, to expect different things from the union. That's why I wanted to establish some new issues to deal with — otherwise we were in trouble. You know what happens to social institutions that aren't in step — there's only 90 members in the flat earth society. And that's why the other unions that started out in competition with us aren't here today. I can't think of any other reason.

During the 1960s, we made the decision to try something out-of-the-ordinary in labour relations. Everybody was talking automation — today, we call it high tech. We recognized that our industry depended on high technology and to resist it would be like saying the industry shouldn't exist. Our view was to make new technology serve our members and the community. We wanted a joint decision-making process, where we could assume some powers traditionally regarded as management rights.

The strikes we had were vicious and long. We established that we could conduct a strike, and the companies established that they could take one. No-one's questioned that since. Our 1965 strike set the stage for how labour and management could deal with tech change. Today, everybody wonders why we had the strike. But the strike was about ideology. What do those workers know about tech change, the companies said. That's for engineers. We thought the workers were being disregarded in every respect.

That's where we started from — a joint say in new technology.

From there, we went on to other concepts like getting paid for qualifications. In traditional seniority rules, all sorts of arguments crop up about 'relatively equal ability.' It all depended on the arbitrator.

When I called for a progression plan — where everyone can train and be paid for their qualifications — I was accused of doing away with seniority. I had a difficult time proving that this was how you made seniority work. And since we've had job progression

and payment by skill, we've few, if any, disputes over seniority.

Our union studied ways of changing the bargaining process. In the early 1970s, the federal labour ministry was all excited about Germany and co-determination — where workers elect representatives to the Board of Directors. I concluded that what excited our government was the low strike rate in Germany, not what the system had done for the worker.

To make a long story short, I decided we had to find our own approach in Canada. The environment wasn't right for workers going onto Boards of Directors. It certainly wasn't a centrepiece. The action had to start on the plant floor. We needed a scenario where the worker had more rights on the shopfloor. If you take the route where only the union executive has more rights to talk with senior management, it's a dialogue without any basis in reality. It's counter-productive — people will only say 'the union's in bed with the company.' So we decided to start on the shopfloor.

We have tried a number of approaches. When you are breaking new ground, how do you know you're right? You have to adjust to the demands of the situation. When Shell started its Sarnia plant in the 1970s and offered us automatic certification and

a chance to work on design, our union already had its principles in place, and we had some handles, like our experience with the pay progression plan.

At first, a lot of people defined it as a management program. But last year, a manager told me it was now defined as a union program. Now we are running with the ball a little faster than some managers want to. We want to see the concept spread. Having gone into the water, and the water having risen, we have to swim or go back to shore. That's something we're going to have to discuss with top management.

In the industry at large, the union has pushed for involvement in productivity and efficiency studies that touch on the total operation of the companies. Our jobs depend on Canadian plants being competitive on a world market. If a plant shuts down, it doesn't re-open somewhere else in Canada. It will open somewhere outside Canada. So, since our jobs depend on the overall performance of a company in total — and not just the work performance — we want to be involved.

These kind of concepts carry over into our union operations as well. This fits into our traditions, which match the participative style on the shopfloor. You can't go to an

employee and demand less supervision if you don't trust your own members to think for themselves in the union. That's why our executive board is made up of rank and file members. I as the president, and the secretary-treasurer, are the only union members who attend board meetings, and we can't even vote.

A few years ago, we had a meeting with 27 stewards at Shell Sarnia and it was one of the most rewarding experiences of my union career. I wanted to know about the human dimension, about how these young people were affected by working in a participative environment. It made such a difference that it shocked me. Each of these 27 stewards could sit down with a problem, analyze it, and develop a solution.

That's my view of what the union's about. When we ask the workers to stand up, we mean on their feet, not ours.

We are not asking people to be dependent on the union — what's the difference with being dependent on the company? The union's job is to help them become whole persons in an industrial society.

I think there are two major thrusts that will determine the course of the 1980s. First is the nuclear arms race and our continued existence. If we are still around, there's the question of increasingly large-scale industrialism. Can governments and unions develop a place for the individual — that question is crucial. If we don't find an answer, if we don't develop the feeling that everyone counts, then we will pave the way for the corporatist state run by a corporate elite.

Some unionists might want to take the all-or-nothing approach. They think it's easier to foment change that way. Take a chance on the corporate state, where at least workers will know they're workers because they are crapped on. And everyone will know who managers are, because they're the only ones who are well off.

That viewpoint is obsolete in my view. The problems of large organizations still have to be addressed, regardless of the economic system. So do problems of technology and efficiency. To affect the outcome, we have to influence people at the shop floor. That's where the action is, not just in the legislature. And that's how we can start to build a better world.



Holberg

Can unions develop a place for the individual? 'If we don't find an answer,' claims Reimer, 'then we will pave the way for the corporatist state run by a corporate elite.'

Swedish study tour

'If you drive a bus fast enough, everyone will be too scared to jump off,' a Swedish manager declared, explaining his 'hang in' attitude to recent legislation increasing union powers to negotiate working conditions.

A delegation of 25 high-level Swedish managers visited the Ontario Quality of Working Life Centre in September, as part of a North American tour to familiarize themselves with new developments in management. The Centre 'is now the leading government organization engaged in QWL activities,' a spokesperson explained in requesting the seminar.

'Managers now realize that we have to participate more directly in developing the work environment,' claimed Stefan Daun, administrative chief of Matell Arkitekter.

The delegation was also interested in North American ideas about improving employee motivation. 'Fifteen years ago, we talked about this in theoretical terms,' explained Agnetta Rehnstroem, a counsellor with the Employment Security Council. 'Now it's a pressing problem and we have to be more practical.' Jan Krook of the Ericsson Company explained his experience: 'Of three critical factors — job design, community standards, and management style — I have found that job design is most important in boosting productivity.'



Tom Rankin and Jacquie Mansell during a Centre two-day seminar on sustaining QWL.

Holberg

Centre bestseller

The Ontario Quality of Working life Centre has a bestseller on its hands. A September first printing of 15000 copies of Jacquie Mansell and Tom Rankin's *Changing Organizations: The Quality of Working Life Process* has already been exhausted. A second printing is on the way, to fill backorders from Alaska, California, India and Holland, as well as numerous requests within Ontario.

Mansell and Rankin tried to write 'a guide, not a cookbook' for the QWL process. Based on their five years' consulting experience at the Centre, the book deals with a wide range of practical questions that crop up in any QWL process.

QWL, they insist, is an ongoing process of learning, and the process must be open, participative, and jointly-owned by union and management.

This commitment to QWL as ongoing learning leads to their comment on experts and expertise: 'Whereas "The Expert" tends to provide "The Answers," a facilitator uses her or his experience to help people to develop the ability to find their own answers.'

Changing Organizations is one of a series of occasional papers published by the Centre, in its efforts to promote education in the QWL field. In the same series, the Centre has also published David Jenkins' *QWL — Current Trends and Directions*, Eric Trist's *The Evolution of Socio-Technical Systems*, and Jacquie Mansell's *Dealing with some Obstacles to Innovation in the Workplace*.

All the above publications are available on request from the Ontario Quality of Working Life Centre.



Holberg

Swedish management delegates attending QWL Centre seminar.

U.S. REPORT

Bell tolls for QWL, unionists say

by Ronnie J. Straw and Charles Heckscher

Few industries have been as much affected by new technology in the past 30 years as telecommunications. In that time the Bell System has been transformed from a mechanical operation, heavily dependent on operator intervention, to a largely automated, computer-based network. Almost all workers, from operators to skilled testers and installers, have been affected by these changes. And as far as we can tell from crystal ball gazing, there is a great deal more to come in the next decade.

The Communications Workers of America has never opposed the introduction of new technology, because we believe that the health of the industry — and therefore the employment of our members — lies in our remaining in the forefront of innovation. For the most part, our union has proved well-founded. From 1950 to 1980, increases in efficiencies were more than offset by the growth in demand for telecommunications, so that we have substantial increases in jobs as well as in levels of pay.

If course, particular job titles have suffered sharp decreases in this period. Most notably, operators' ranks declined by nearly 50 percent between 1950 and 1980, at the same

The collective bargaining process will always be the foundation of industrial democracy; but QWL gives us the tools to build higher than we ever have before....

Worker participation has benefitted our local officers. Their role has traditionally required that they spend ninety percent of their time handling the grievances of ten percent of the membership. A successful QWL process deals with many of these grievances at the source, rather than working them through the levels.

This has given officers time and a mechanism to approach the concerns of the 'hidden ninety percent' of the workforce: the members who rarely file grievances, but who are troubled

time that toll calls were increasing fifteen-fold. As computerization extends into formerly 'high-skilled' occupations like testing, we may see an overall decline in employment there too. Nevertheless, technology is opening so many potential new market opportunities in data transfer, enhanced video services and other areas, that there is likely to be continued overall employment growth.

But the favorable employment picture has masked another, subtler effect of the new technology. The new jobs are often considerably less pleasant to work at than the ones they replaced. Four frequent characteristics of computerized jobs have tended to increase pressure on workers.

1. Loss of autonomy and control.

Operators, for example, can no longer decide when to pick up a call. As soon as they disconnect from one customer, the next is automatically 'dropped in' by an electronic routing system.

2. Increased managerial monitoring.

A by-product of computer control is that every action of workers can be measured and counted. Operators (and their bosses) receive a constant tally of how many calls they handle per minute; if their average drops much below two, they are subject to discipline.

3. Reduction in skill levels.

Testers and repairers have been the greatest victims of a transfer of knowledge to the machines. Repairs, for instance, have increasingly become a matter of plugging in ready-made modules or instructions from the computer.

4. Centralization.

More and more functions are handled

by job pressures all the same. In this way, QWL improves communication between local leaders and their memberships....

Collective bargaining has not been weakened. We work on the traditional issues of wages and basic working conditions just as we always have. But through QWL, we are extending our influence into the murky territory of 'management prerogatives,' helping to shape management practices and policies while they are being formed, rather than after the fact. In the long run, I believe this cannot help but strengthen the union.

Glenn Watts, 'QWL and the Union: an opportunity or a threat?'
Work Life Review, November, 1982

impersonally from centralized locations. Directory Assistance personnel, who handle requests from far-away cities, find that their lack of local knowledge often hampers them in answering customer's questions. Testers check distant lines and have to give instructions to repair persons they have never met. The lack of informal ties sharply cuts the efficiency of communications.

These concerns, which have not been traditional subjects of collective bargaining, have been raised with increasing urgency by our members. Since the mid-1960s, there have been a series of resolutions in our annual conventions demanding a reduction in 'job pressures.' In 1979, they culminated in a nationwide 'Job Pressures Day,' in which thousands of workers demonstrated against the growing stress in their work.

Though we face a lack of union experience in dealing with these problems, we have taken some initial steps. Two clauses in the 1980 contract with AT&T are especially important. First, we negotiated a joint Quality of Work Life effort aimed at giving our members a greater voice in the decisions which affect their daily life on the job. Second, we agreed on joint Technology Change committees in the operating companies, to formulate recommendations for implementing new systems. In the 1983 contract we took two further steps: the operating companies wrote letters of understanding limiting the use of observational monitoring for operators; and we issued jointly with AT&T guidelines for the introduction of VDT screens.



Glenn Watts, C.W.A. president.



Toronto City Archives



Bell Canada



Bell Canada

We can't say that these provisions have solved the problems. Though the QWL process has led to improved relations and less burdensome supervision in many offices, it has not reached to the fundamental policies which shape the development of new technologies. It seems that for every improvement in individual locations, a dozen systems come from the Bell Laboratories reinforcing the de-humanizing patterns which we are battling. As for the Technology Change Committees, their effectiveness has been limited both by the resistance of management, which sees this area as a crucial bastion of 'managerial prerogatives,' and by the lack of experience of the union participants. As a result, membership attitude surveys over the past three years have shown, if anything, increasing levels of discontent with job pressures.

But at least we are beginning to understand more clearly where the problem lies. When we talk to designers at the Bell Labs, or when we read their technical articles, we find an almost total absence of any reference to the effect of their systems on workers. They consider many factors: capital costs, customer service, flexibility, and so on; but they seem to be completely unaware that there are *people* involved in the use of the machines. (At best, they think that the human consequences can be handled at the time of implementation). It is true that design teams usually include experts in 'human factors,' or ergonomics, who are supposed to make sure that the systems are not physically uncomfortable for the users. Nevertheless, aside from the fact that the experts often don't do their job well, this approach reflects only the narrowest conception of the human consequences of technology; it does not consider any of the four factors described above.

It is this mentality, which is rapidly creating an entire system in which humans feel themselves as unwanted appendages to the machines, which needs to be changed.

We believe that some basic principles should be considered primary in technological development.

1. Jobs should be created which are varied, interesting and meaningful.
2. Workers should have autonomy to do their jobs.
3. Informal, team-based interaction

should be maximized whenever possible.

These principles are not opposed to the ones which are presently used in the design of technology, such as efficiency. On the contrary, they complement them by ensuring that people and the machines do not work at cross-purposes.

Though good examples are few, it does appear that technology which is designed with workers in mind is often more efficient than its traditional counterparts. One case of particular interest occurred in Australia. When management proposed plans for electronic switching systems which were to be highly centralized, the telephone unions countered with a plan which would use the same basic technology in a decentralized way. After a year-long trial of both approaches, an impartial panel concluded that the union approach was at least as effective as management's in purely economic terms.

It is not likely that we can successfully introduce our design criteria through collective bargaining, or even direct communication. It is a matter of translating our principles into the language. In order to make workers' concerns a real part of the design process, union representatives and workers will need to be actively involved in that process from the beginning.

That is not an easy prescription. It will take a lot of trial-and-error, a lot of learning, on the part of the union as well as the companies. We believe, based on the success of our QWL effort so far, that we will be able to work cooperatively with management in developing broader participation in the planning of technology. The first step should be to develop clear goals and methods for the Technology Change Committees. Beyond that, we do not have detailed blueprints. The only sure thing is that there must be changes if technology is to fulfill its promise of benefitting workers as well as managers.

(Ronnie Straw and Charles Heckscher are on the research staff of the Communication Workers of America.)

EUROPEAN REPORT

Product shops go with the flow

by Harvey Kolodny

A revolution is taking place in Swedish manufacturing. It's a revolution that we in Canada should know about because it's directed to challenges that we also confront: the development of small and medium batch manufacturing systems that are effective for both the products and the people who work in them.

The objective of the revolution is to produce with more flexible technology and a more responsive set of organizational arrangements. The changes promise higher productivity. They also promise important improvements in the quality of working life.

The flexibility and responsiveness that the Swedes aim for is based on innovations in two areas: technology and organization. The new technology takes the form of robotics, computerized numerical control

(CNC), and sophisticated materials handling equipment and methods.

The innovations in organization tend to follow product organizational forms. The product forms of organization include machining cells ('group technology,' as they are called in England, or 'flow groups,' as they are called in Sweden), assembly cells and small, total production units organized as product shops (they are referred to as 'factories within factories' in Rolf Lindholm's *Job Reform in Sweden* and 'plants within plants' in Wickham Skinner's description of the focussed factory.)

Product and functional forms

Product organizations are organized 'with the grain,' to use Rolf Lindholm's phrase. This means they follow the natural flow of steps in the production process. Functional organizations, by contrast, cut across the grain, across the flow of production. In functional arrangements, work-in-process queues up, waiting to be processed in 'efficient' batches.

Product organization is attractive for several reasons. With no queuing, and with production following the natural process flow, it considerably reduces



Organizing 'with the grain' in a Swedish truck factory.

throughput time. As such, it reduces inventory and associated materials handling costs. Smaller product shops promote commitment, innovation and leadership at the local level.

Although Swedes are not obsessed with any notion that 'small is beautiful,' smaller organizations are an important component of the trend to product shops.

The 'economies of scale' that are so central to the dominance of large-scale assembly lines and functional organizations have begun to face severe questioning in Sweden. At Volvo, for instance, the experience of the last several years confirms that assembly plant efficiency is in inverse proportion to size: the smaller the plant, the more efficient it is.

Likewise, decentralization is an important aspect of the product shop transformation. In North America, decentralization usually means divisionalization. But within each division, functional forms tend to be re-established. In Sweden, decentralization frequently does not stop at more manageable and autonomous divisions. Within many



Truck chassis subject to quality control inspection. According to Kolodny, product quality is a beneficiary 'of the ease of communication between members of a small, cohesive organization.'

corporate divisions, Swedes pursue product forms of organization all the way down the hierarchy.

Product shops in small batch manufacturing have already scored dramatic gains. Through put time, for instance, is commonly reduced from three to six times. Flygt Corporation's new product shop for submersible pumps is one example; it is expected to reduce throughput time from eighteen down to six weeks.

Swedish work innovations

Swedish work innovations during the early 1970s focussed on issues such as semi-autonomous work groups, parallel organizational arrangements, decoupling from the assembly line, buffers, and improved health, safety and ergonomic environments. High absenteeism, turnover, labour shortages, increasing educational levels, reluctance to work on the factory floor were some of the key problems driving these early innovations. A large number of companies experimented with one aspect or another of new work

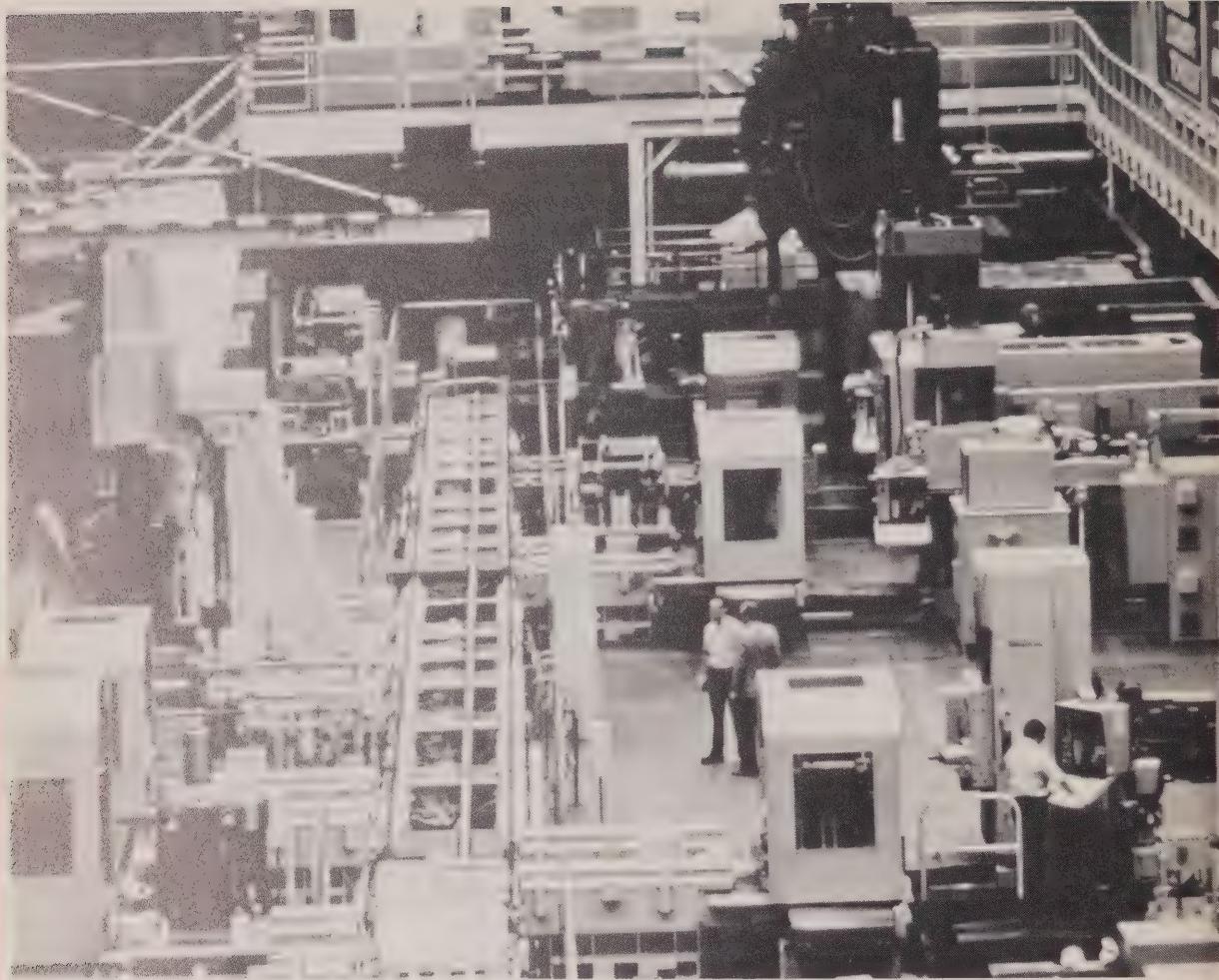
organization arrangements, even if some of the experiments were limited. The belief in their value grew slowly, but the extensive re-arrangements required were usually considered non-economic.

The tougher environmental climate of the 1980s curtailed much capital investment. But where investment did take place, it centered on the new technologies of robots, computerized numerical control and new materials handling equipment. By this time, the work innovation experiments were widely enough known, and had obtained sufficient support from progressive corporations as well as the Swedish infrastructure (employer and union confederations, professional and technical societies, funding boards and agencies), that almost every new technology application also made some attempt to incorporate work organization innovations.

Hence, new factory designers were not only instructed to use the latest in technology; they were also told to make cycle times long, to design so

Will yesterday's 'manual' shops, the self-service shops of today, become the 'automatic' shops of tomorrow, in which technology has helped to make employees redundant and centralize decisions on the supply of goods, etc., to large-scale computer centres? Or should we attempt to steer in a direction giving us the chance to adapt to local customer requirements and local planning needs, which would in turn enable shop employees to play a richer and more varied role in their working life? The development programme aims at helping to ensure that the information technology of the future will be used to sway events in the latter direction. Computer technology properly applied is well capable of achieving a satisfactory balance between the advantages offered by centralized goods distribution on the one hand and the scope of the local shop for personal service, employee independence and employee-customer contacts on the other.

The Swedish Work Environment Fund Program for New Technology and Work Organization (ASTA)



Flexible manufacturing system in GE's Erie, PA. plant.

people could work in groups, to limit group size even if it meant making some lines parallel, to provide team meeting and planning space, to consider ergonomics, etc. Almost no Swedish industrial engineer in the 1980s would design a new plant to only bureaucratic or functional organization design principles. In effect, the work organization changes of the early 1970s became a part of the new production technologies of the 1980s.

Flexibility

Proponents of product shops argue that they increase flexibility. However, this can become a question of definition. It depends upon what 'flexibility' refers to. For sheer flexibility in the production of parts, it is difficult to argue that any form is superior to functional organization.

The argument for the flexibility of product shops is a different one. Many of those advocating product

shops are aware of the need to use the latest in new technology if they are to remain internationally competitive. This means justifying expenditures for the robots, computerized numerical control, and new materials handling equipment mentioned above. It is difficult to justify such high capital investment for small batches of any single product or product line. However, the economics are often in the right direction when the equipment is flexible enough to accommodate different products or product lines with only minor variations to software programming, set-up or tooling. Hence, the flexibility of product shops comes from the equipment that lies at the heart of it, and the organizational arrangements used to administer it.

The flexibility of product shops also relates to their ability to reduce throughput time. Using product organization companies can respond to customers in weeks rather than

months. Hence, they feel flexible enough to shift and change as specific customer demand warrants. Managers of product shops maintain that they now plan production for their customers rather than for the logic of the production planning process.

In the long run, the demonstration of significant product shop flexibility will come from the redesign of products. When products can be designed so that many different products use enough common parts that changes to production equipment are minimal, product organization arrangements will be able to offer all the speed of product shops and still have many of the flexibility advantages of larger but slower functional organization forms.

Examples and implications

We can illustrate the concept of the product shop with a simple example from the machining sector.

The major mechanisms involved are the technology components (CNC, robots, transfer devices and magazine loaders), and organizational arrangements such as relatively self-maintaining work groups, production staff in close proximity to the operators they work with, and organization along the flow of production. One of the couplings between the work organization and the technology is accomplished through 'partly unmanned manufacturing' (PUM).

PUM is an attempt to achieve at least one hour of unmanned machine functioning. If machines can run for one hour without manning, they can run through coffee breaks, lunch breaks, shift changes, and they can allow operators to set up for the next batch, change tooling, reprogram, and carry out minor maintenance. Researchers at Sweden's Institute for Production Engineering Research maintain that with one hour of PUM, they can double the effectiveness of machining operations.

Many blue-collar unions see these arrangements as contributing to the deskilling of operators with particular craft skills. Others maintain that jobs are enriched because operators now plan or oversee operations, reprogram equipment, and add new skills to their repertoire. The potential for organizational conflict is high. The boundary that separates supervisory work from that of operators is blurred and potentially conflictual.

Furthermore, the close coordination needed in a product shop usually demands that production staff be in close proximity to operators, a requirement that blurs another boundary, the one between staff and line. PUM and new technology can both lead to reduced employment. Planning production to flow 'with the grain' reduces the number of planning points, and in so doing reduces the need for many production planners. Both of these tendencies heighten unemployment concerns.

With PUM, operators can rationally think about set-up times approaching zero because they have time to prepare the next batch while the machines are automatically operating the existing batch. Furthermore, much of the set-up is done by relatively quick reprogramming of robotics or CNC equipment and some of the latter have automatic tool change mechanisms built into them.

With set-up time approaching zero, batches of one are the result. With product oriented flows, lower work-in-process inventories should result.

The effective design of manufacturing operations within a product shop requires a high level of industrial engineering rationalization. Product shop designers need to have a very clear understanding of the products, their production processes, and the equipment alternatives to create an efficient organizational unit.

Because the flow of the product through different operations makes its purpose and functioning clear, and because the needs of each customer are well understood, there is a heightened awareness of production and of the business among employees. Product quality is a beneficiary of this awareness and of the ease of communications between members of a small, cohesive organization.

This awareness also means that tasks are meaningful, an important component of improved quality of working life.

The opportunity to work in small groups, to manage the work allocation within the group itself, to be a self-maintaining unit with some autonomy from the rest of the organization also promises to improve the quality of working life.

Conclusions

There are several key learnings from the experiences of Swedes. The work organization changes that they experimented with over a 15 year period had to await the introduction of new technology before they became the common currency of industrial engineers. Swedes are nothing, if not pragmatic, and only with the extensive restructuring brought about by technological change could the questionable economics of work organization innovations be overcome. Now, as these innovations are increasingly a part of the production technology of the country, their acceptance and implementation seems assured.

With technological change, organizational restructuring was inevitable, and product forms of organization provided the direction for new arrangements. In these troubled times, product forms offer a responsiveness that traditional functional designs cannot offer.



Harvey Kolodny, just returned from a year's research in Sweden. 'Smaller product shops promote commitment, innovation and leadership at the local level,' he says.

Sociotechnical systems design theory and the direct involvement of people in the designs of new work organizations are ideas that receive very little attention in Sweden. Though the applications here are limited, the concepts appear to be more accepted in Canada and the U.S.A. Nevertheless, Swedish approaches appear to have high payoffs for the quality of people's working lives. There is much to be learned and adopted from the Swedish experience, even if we are more likely to adapt it to our own ways of thinking about improved quality of working life.

(Harvey Kolodny, former industrial engineer, now professor of Management Studies at University of Toronto just returned from a year's research work in Sweden.)



Canada

Bridging the gap

In the midst of British Columbia's heightening confrontations, a grass-roots group of employers, unionists, academics and consultants organized a two-day conference to explore 'Bridging the Gap.'

Sponsored by the BC Worklife Forum, a four-year old voluntary association promoting dialogue around issues of productivity and worklife quality, the September conference attracted 240 people. It was organized by volunteers and made possible by member donations of such basics as typewriters, paper, stamps and audio-visual equipment.

Conference themes were 'the individual and the organization,' 'work and community,' 'work and health,' and 'labour and management.' Workshops presented a showcase of B.C. experience with a range of innovations from quality circles and alternative shift schedules to community job development and socio-technical job redesign.

The positions of government, labour and management were explored, and at times hotly debated, in keynote presentations by Art Kube, president of the B.C. Federation of Labour, Jim Matkin, president of the B.C. Employers Council, Mark Daniels, Deputy Minister, Labour Canada, and Isabel Kelly, B.C.'s Deputy Minister of Labour.

Tapes of conference proceedings are available from Sue Barton, BC Worklife Forum, P.O. Box 46661, Station 'G', Vancouver, B.C., V6R 4K8. Jacquie Mansell

Canadian Council

A January 21st business meeting hosted by the Eastern Ontario and Western Quebec Forum of the Canadian Council on Working Life established a Constitution Committee to generate amendments to the existing constitution. Further discussion centred on a National Conference to be held in June or September in Ottawa.

The South Central Ontario Forum is planning a meeting in March at the Ontario Institute for Studies in Education on the 'Changing Roles of Supervisors, Managers, Specialists and Shop Stewards.'

For more information contact: The Canadian Council on Working Life 1230 Danforth Avenue Toronto, Ontario M4J 1M6

Facing the future

Eighty percent of provincial government workers think their jobs could be done more efficiently, according to a recent nation-wide survey, and 63 percent say workers have the best ideas on how to do it.

The study was released January 24 by John Fryer, president of the National Union of Provincial Government Employees. Speaking to a NUPGE - sponsored conference on 'Facing the Future,' Fryer also reported survey findings that 45 percent of provincial employees rate job security as their number one problem.



John Fryer releases nation-wide survey; 63 percent of government workers want a say on improving efficiency of their jobs.

This was one of the first futures conferences organized by a Canadian union, and included sessions on the future of work, technological change and women's equality.

Up to engineers

'It is up to us to improve the quality of life,' John B. Kelly urged, in a keynote address to a Toronto conference of 1000 industrial engineers last November. Kelly is Chief Executive Officer of Nabu Technology.

The conference theme, 'Integrating People and Systems,' suggested a new direction for industrial engineers, and new interest in QWL themes.

Of 150 presentations, 15 dealt with improving productivity and quality through worker involvement programs.

The event was sponsored by the 43000-strong Institute of Industrial Engineers.

Union agenda

If some QWL programs block unionism, Ray Hainsworth told a national radio audience, the message isn't that we should oppose quality of worklife programs because they're union busting. The message is: 'look what the heck the people are getting out of it, and put it on our bargaining agenda.'

Hainsworth, education director of the Ontario Federation of Labour, was joined by a panel of business, labour and union experts exploring new management developments on CBC's Ideas series in September.

Robert Heneault, vice president of Stelco, and Tom D' aquino, president of the Business Council on National Issues stressed the importance of a commitment by all parties involved in designing a truly participative system.

Trist honoured

Eric Trist, one of the 'founding fathers' of the QWL movement, has received an honorary doctorate of laws from York University in Toronto. In his November 1983 convocation address to graduating students, Trist returned to one of the basic themes of his life's work — action research and action learning.

As an illustration of the applicability of QWL concepts to all areas of life, including higher education, we reprint major portions of his address.

While the basic disciplines will remain strong, between now and the end of the century there will have to be a great deal of innovation.

In an increasingly complex, uncertain and rapidly changing world, universities, like other organizations must innovate in order to survive.

A number of recent trends foreshadow the future. One that has particularly impressed me in my five years at York is the increase in the number of older, so-called mature, students...

Tertiary education will tend in the future to become more discontinuous than it has been. I was struck by the proposals brought forward by a working party on education for the European Economic Community. The representatives of the then nine nations for once agreed on something:



Shea Hoffmire

'We need flexible, resourceful, resilient people who can tolerate a lot of surprise and ambiguity,' Trist told a 1983 graduating class.

that at age sixteen one should be given one's educational rights in the form of vouchers which one could use in a variety of ways — to go straight ahead with further study; to break for a while, go to work and return; to do this more than once. This is one meaning of life-long learning.

An implication of all this is that in the university, as well as in other contexts, learning will need to become more multi-channelled. The traditional rigorous, logical left brain will remain, but not as the exclusive, or necessarily the most prestigious channel under all circumstances. The intuitive skills of the right brain in the appreciation of emergent contextual factors need to be cultivated. We need consciously to develop both sides, if we as a species, are going to cope

adequately with the difficulties and uncertainties now emerging. We need flexible, resourceful, resilient people who can tolerate a lot of surprise and ambiguity emotionally, while continuing to work on complex issues intellectually. We must look with great care at the needs of the talented people who have not had the opportunity to take the first level. They may at times be admitted in some fields at the graduate level. The more learning becomes multi-channelled (though fields may vary immensely), the more different kinds of people can effectively be included. The result is a variety of increasing systems.

If the strategies I have advocated are effectively pursued, they will enable more people to embark on multiple careers. The prospects of those graduating now, of remaining in one occupation through life, are small. Many jobs are becoming obsolete, as the microprocessor revolution has brought home new and changed jobs requiring new skills. Therefore additional training will be needed. Some of those graduating today will be re-graduating a few years down the road. Others are re-graduating now. I offer this that people will have to learn to be generalists, as well as possessing special competence. By this, I don't mean that they will have to be Jacks - (or Jills) - of -all -trades, but will have learned to see the general in the particular, to relate the part to the whole, to have the knack of shifting gears rapidly, of catching on to a new direction. They will have to select more individual paths in a broader garden. They will need guidance and advice from several sources but



Holberg

A key issue is to introduce more active learning into formal educational settings, says Trist.

they will have to take responsibility for their own learning journey.

To meet these challenges, we need to develop not only wider but more commonly shared frameworks. Among other things, this means more cooperation and collaboration in the learning process itself. The tradition of academic individualism is a major barrier against this. Competition will, of course, continue but cannot remain primary. The search for new collaborative modes will affect students and teaching faculty alike and lead to far greater sharing of learning resources and undertaking of joint projects...

A key issue is to introduce more active learning into formal educational settings. For the work organizations of the future are likely to emphasize active learning to be less bureaucratic than existing organizations. We need this change for product quality and competitive edge no less than for the satisfaction and personal growth of the people concerned. The trend — often referred to as improving the quality of Working Life — is definitely strong in Ontario. It will have to spread widely if we are safely to make the passage from an industrial to some form of post-industrial information society. People will need to be prepared to lead both more self-reliant and more cooperative lives.

The changes taking place in the contemporary world are beginning to affect the deep structures of society.

The generations now graduating or soon to graduate will find themselves called on to take a major part in shaping a world very different from the present. If we simply project the past and present into the future, we find our social learning — which will take place in many different groups in different settings and involve large numbers of people.

The process has recently been called by my colleague group at York 'Action Learning.'

My generation has seen the need for new appreciations and new tasks of social building. A small beginning has been made, against the odds. The task of your generation is to make enough of all this happen so that we as a species, get through to the next century without too much irreversible damage and mutual destruction.



Holberg

We need a new theology of work, claims Reverend Lapp.

New work ethic

'The transformation of the workplace concerns nothing less than the fundamental issue of the value of the individual: in his own eyes, in the sight of society, and in the overview of God,' Reverend Douglas Lapp told a Toronto Metropolitan United Church congregation in his 1983 Labour Sunday sermon.

As an informational service to our readers, we reprint major excerpts from his address.

What is needed in order to face a new situation in the workplace is a new theology of work. But here, we have to admit that we are in confusion. Some of us cling to the mediaeval theology, based on the third chapter of Genesis, which holds that work, after all, is a curse imposed upon man and woman as a consequence of their disobedience in Eden. But try discussing work as a curse to the man

who has been laid off his job and still has his wife and children and mortgage to attend to, and needs work more than anything else!

Others of us have clung to the Reformers position which holds that, far from being a curse, work is a calling, a vocation, a God-given task... There is still much value in the concept of 'vocation,' but we must face the fact that an increasing number of workers would be hard-put to find any sense of 'call' in work which they, and others, can and often do describe as meaningless, alienating and dehumanising...

A new theology of work for a new age will require a completely fresh look... Look at the second chapter of Genesis, in order to see the beginnings of a dynamic theology of work. 'The Lord God took the man and put him in the Garden of Eden to till it and keep it' (Genesis 2:15). Here the individual is placed by God in His created world to be a living part of God's continuing creative work. So the papal encyclical *Laborem Exercens* states: 'The basis for determining the value of human work is not primarily the kind of work being done but the fact the one who is doing it is a person...'

It is heartening to note that as the church struggles to re-orient its theological perspective on work there are those who are pioneering new ways of seeing the individual in the labour-management interface. Notable among these is Eric Trist who addressed the International Personnel Conference in Montreal in 1977. His theme was *Adapting to a Changing World*. He emphasized that due recognition must be taken of the fact that the 'human individual has work-related needs other than those specified in the contract of employment (such as wages, hours, safety, security of tenure, and so on).' These latter Trist refers to as 'extrinsic' requirements and he sees them as 'the legacy of the old work ethic.'

But a new work ethic must develop, he claims, taking into account 'intrinsic factors' which meet the legitimate psychological needs of the individual in the workplace. The individual worker has the 'human right,' Trist claims, to be involved in problem solving on the job; to have opportunity for personal growth; to be able to use personal judgement on

the job; and to have social support and personal recognition. Furthermore, the individual has the right to see his or her work in a positive relationship to one's life in society as a whole. One should be able to feel that one's work contributed in some way to the well-being of society. Finally Eric Trist asserts that one's job should contain hope for desirable future, involving progress or variety or greater skill. What a wonderful description of the implication in the modern workplace of a concern for the worth of the individual!

An encouraging development in Ontario... is the Ontario Quality of Working Life Centre under the provincial Ministry of Labour. 'People understand the humiliation of being treated like parts of machines, or even worse, like children,' the Centre states, 'and they understand and know what it is like to be respected and treated like capable, responsible adults... Thus... people are seen as purposeful human beings with ideals and important social and psychological needs in relation to work. They are assumed to have the ability and willingness to learn and the need and capability to handle responsibility and autonomy.' The Centre offers clear-headed leadership in specific projects which not only set its individual orientated ideals at the centre of industrial planning but also, as it most often proves, helps to improve management-labour relations in the process.

The way is being shown to us by those who, applying the central Christian insight of the worth of the individual, are striving to develop a work-ethic to match the urgent needs of a new day. The church will aid this vital task by espousing a theology of work which has at its centre the Christ whose 'householder' made his judgement not in terms of labour but in terms of the labourer.

Womens' jobs

To facilitate the entry of women into technology-related areas of employment, the Ontario Women's Directorate has initiated a project entitled 'Jobs for the Future: Women, Training and Technology.' The process involves a series of six regional consultations, followed by a major conference to be held late in 1984.

Because occupational segregation is rooted in social attitudes and practice, the consultative process is designed to generate community based action to expand the career options of women.

The initiatives planned in each of six communities will be compiled and co-ordinated in a document to be discussed at the conference next fall.

At the first consultation held in Thunder Bay in November, 1983, participants from all sectors of the community were enthusiastic. For example, Confederation College suggested that an information package on training opportunities be developed for high school guidance counsellors. Business and industry representatives planned to examine recruitment and training procedures. Unionists discussed informing their female members of the need to acquire skills related to new types of employment.

Future consultations will be held in Toronto, St. Catharines, Windsor, Ottawa and Sudbury.

A. Roberts,
Ontario Women's Directorate

Grassroots search

'Long-range planning and future goals and objectives are vital to the health and quality of life of a community,' explained Ovid L. Jackson, mayor and initial instigator of an October 1983 grass roots event which saw panel members representing all sectors of society present ideas on how to improve the growth and image of Owen Sound. Ideas ranging from upgrading tourist appeal to increasing the industrial base were submitted for the design of an action plan.

In Hamilton, McMaster University and the Hamilton Spectator sponsored a two-day conference on the economic outlook for the area, where Dr. Christopher Freeman of the University of Sussex, England warned 'if the information revolution is to enrich society's future, institutions will have to change.'

Speaking to 600 delegates, Freeman emphasized the necessity of upgrading patterns of industrial relations and worker participation.

QWL internship

The Institute of Public Affairs in Halifax has launched a two-year internship program in worker participation designed to maximize the advantages and overcome the obstacles of introducing QWL to the Maritime regions.

The program features a one-week residential course followed up by two days per month of workshops, which provide participating line managers and unionists an opportunity to learn from one another while applying their new ideas to the workplace. Twenty-nine QWL facilitators for 12 public and private sector organizations will be involved.

According to Jack Dougall, a senior associate of the Institute, the program is designed to promote a 'competent QWL resource' for the Maritimes, a challenging task given the scattered population and low level of QWL awareness in the region. Graduates of the program will lay the basis for a strategically located resource network, he claims.

The Institute is also sponsoring public lectures dealing with QWL. On February 27, internationally renowned authority Einar Thorsrud lectured on 'The Ecology of Organization in the Shipping Industry.' Thorsrud is a council member of the Institute.



Einar Thorsrud, first director of Norway's Industrial Democracy project, is a council member of Halifax Institute of Public Affairs.

Futurists

'Futurists should talk about the future in a way that increases people's sense of power over their own destiny...' This was the message delivered by job-finding expert Richard Bolles to 600 participants at the World Future Society's August 1983 conference in Washington on 'Working Now and in the Future.'

Many speakers stressed the importance of worker participation in shaping the job environment of the future. 'For worker participation to have a meaningful effect, it will have to be the norm in our society, rather than the exception,' said James T. Joyce, president of the International Union of Brick Layers and Allied Craftsmen.

Ronald Kutscher, statistician, gave the subject of emerging careers a different twist from the predictions of futurists. Menial low-tech jobs will not disappear to be replaced by stimulating high tech ones, he insisted. Rather, the majority of jobs over the next decade will remain in traditional areas such as food service.

The conference generated two publications: a collection of articles in *The Futurist* (October, 1983) and a collection of original essays edited by Howard F. Didsbury Jr. *The World of Work, Careers and the Future*. (Maryland: World Future, 1983).

Respect grows fast

Employees of fast growth companies are treated with more respect than in slower-growth operations, a U.S. poll of 100,000 workers revealed.

Michael Cooper, human resources consultant, attributed this to the fact that, 'faster-growth companies are characterized by a clearer positivism among employees, while slower are characterized by an attitude gap — which separates management from employees.'

The survey, conducted by Hay Management Consultants from 1981 to 1983, was presented to a New York conference of human resource professionals in November.



Two U.S. reports indicate rising concern over white collar productivity. Above, a low-tech turn of the century office.

White collar needs

White collar productivity can be increased, argued Dr. Michael Rosow, if 'the jobs of these employees are made more autonomous, more complete, and more demanding of their talents.'

Rosow, the Senior Vice-President of the Work in America Institute, addressed a June conference of bank and insurance company representatives in New York.

Citibank N.A., Vice-President George Seegers attributed doubling of production in one department to a successful program of consulting with employees prior to automation.

First office study

The first comprehensive report of white collar productivity has been announced by the American Productivity Centre said C. Jackson Grayson, Centre President and Chairman. 'With smokestack America's output shrinking, productivity in our service industries and our nation's white collar work places must improve to ensure economic survival.'

Earlier centre research showed that few companies worked on white collar production despite its relevance for 53% of the workforce.

Double concessions

Concession bargaining did not end labor-management cooperation in New England, a Clark University survey revealed.

The Graduate School of Management's survey found that 'when granting concessions, unions may require a quid pro quo from management,' and 'that the implementation of cooperative plans is more likely in the collaborative climate fostered by reciprocity.'

The unanswered question, according to the study, is whether these forms of cooperation can survive union moves to reverse concessions when economic conditions improve.

Project Saturn

'Project Saturn' brings the auto industry into the space age with the first-ever attempt to include a union in pre-production planning and engineering of a North American car.

A joint study team of General Motors Corp. and the United Auto Workers will measure labor cost, 'not in dollars and cents per hour ... but in terms of what is the best way to build this project,' explained Donald Ephlin, UAW vice-president. The study team may recommend that work groups replace the traditional assembly line.

Auto locals protest

Workers at five General Motors Corporation plants have registered opposition to Quality of Worklife programs co-sponsored by GM and the UAW, reports the January 8 *Detroit News*.

Claims Bob Haddix, president Local 674 at Norwood, Ohio: 'the local is definitely for anything that will improve the worklife for our members,' but management officials want to use QWL 'as a measure to take away your local agreement.' Pete Beltran, president of Local 645 in Van Nuys, California, charged that management was 'making just arbitrary changes, and it's all behind QWL or the competitive edge program.'

According to Donald Ephlin and Alfred Warren, vice-presidents of the UAW and GM, the opposition developed out of confusion between QWL and cost-cutting programs, and was a response to incorrectly implemented QWL programs. The union has sent letters to members encouraging them to support QWL.



At the Sisters of Mercy, they are using QWL as the surgery to achieve teamwork, commitment and learning among professional and non-professional staff.

Sisters of Mercy

Participative management is most appropriate, according to the Sisters of Mercy Health Corporation in Michigan, in situations where employees have expertise/information, employee development is important, employees are highly concerned about issues, tasks are complex and non-routine, and commitment is necessary for implementation.

The Sisters of Mercy Health Corporation has initiated a corporate wide QWL program in 22 midwestern hospitals. Among other activities, the QWL program publishes a newsletter entitled *QWL Innovations*.

Work ethic leads

The American work ethic leads the world, according to a 1983 survey by the Public Agenda Foundation, but managerial practices are not taking full advantage of it.

Fully 52 per cent believed in a need to work hard for the sake of work itself. But only 13 per cent felt they would get promotions by working harder, D. Yankelovich and J. Immerwahr concluded.

To encourage worker commitment, managers should promote a more

direct link between pay and performance, redesign the status system which treats most workers as third class citizens, and encourage workers to set performance standards, the authors argue. At present, only one-third of blue collar workers feel they have any freedom on the job.

Beyond boundaries

'Beyond Our Boundaries' was the theme of a national conference of the Organization Development (OD) Network, held in Los Angeles, October 9-14, attended by 800 practitioners and consultants. Presentations were grouped into six areas: Core OD Technology; Organization Transformation; Wellness; Peacemaking; Strategic Planning; and Quality of Work Life ('concepts and methods related to planned change at all organizational levels').

The Conference's QWL 'track' included presentations from Bethlehem Steel, Boise Cascade, Digital Equipment, General Motors, Honeywell, Rockwell, Xerox and several private and university-based consultants. Sessions addressed issues related to QWL and productivity, new technology, union-management cooperation, job and organization



Ministry of Tourism and Recreation

Union and management will co-design new G.M. plant, and may replace assembly line.

redesign, and managing change in large systems.

The term 'socio-technical systems' was prominent in several presentations, but differed widely in meaning and use. It was depicted as a theory (which it is not), a technique (variance analysis), a solution (autonomous work groups), a set of values about people and changing environments, something mutually exclusive of QWL, and a catch-all term to account for anything not packaged under other 'in' labels. Where noticed, these differing viewpoints prompted lively discussions among a few. This quibble aside, a wide array of recent case material and work in progress was presented and enthusiastically discussed.

A published set of presenters' papers (74 in all) can be obtained from the Executive Director, OD Network, 1101 Park Avenue, Plainfield, New Jersey 07060.

Joel Fadem, Institute of Industrial Relations, UCLA

Industry hi-tech

Fifty-two distinguished experts from business, labor, government and academia met in Dearborn, Michigan, September 26-28 to discuss a broad spectrum of issues linked to the management of manufacturing technology through the end of the century. The conference was sponsored by Michigan's new Industrial Technology Institute (ITI), with technical assistance from the University of Michigan's Institute for Social Research and funding from the National Science Foundation.

ITI, an independent, non-profit corporation, was created last year in Ann Arbor with a \$4 million budget for its first year and \$67.5 million in long-term state and private sector commitments. The Institute's goals are to adapt modern industrial automation to durable goods manufacturing and to stimulate the formation of a new industry to supply automated manufacturing equipment for U.S. and world markets. ITI will conduct basic and applied research, and play an active role in technology transfer. Its central mission is to clear the way, technically, for realizing the 'fully automated factory'. Approximately 25 percent of its effort will go towards

generating new knowledge, 25 percent to testing the feasibility of new findings, and the remainder to advanced development, producing prototypes of new equipment and processes.

The Institute will also have a Center for Social and Economic Issues to conduct research into organizational alternatives, lessons learned from previous automation case studies, methods of managing automated manufacturing enterprises, economic analysis of automated systems, and

the social impact of automation on individual workers and the community.

The purpose of the Conference was to identify specific concerns about the impact of new technologies and to integrate them into a coherent picture of the most pressing future issues. Following is a sample from the many researchable issues raised:

1. How can basic worker rights be preserved in an environment of rapid



'Beam me up, Scotty.' A British worker aligns two sections of a boat with laser beams, one of the technical wonders of modern industry. The Industrial Technology Institute is studying the alignment of workers and the new technology, reports Joel Fadem.

technological job displacement and high unemployment?

2. What are some alternative forms of protecting job security while facilitating efficient plant operation? Can work systems and job design tolerate 'bumping'?

3. What modifications to existing incentive systems for labour, technical staff and management are needed under computer-integrated manufacturing?

4. What are the effects of factory automation on work organization, job content, job design, and supervisory skills? Will the factory of the future blur the distinction between people who do and plan the work?

5. What will the quality of work life be for people in terms of the physical environment, safety, skills development, stress, job satisfaction, autonomy, perceived control, and career progression?

6. What are the adoption rates of new manufacturing technologies, barriers to adoption and methods of speeding up the process?

7. How do education and training affect the diffusion and adoption of new technologies? Should education be more general or specialized?

8. How can management and unions work together in the planning and introduction of new technology, in contrast to labour's current involvement at the tail end of the process?

9. How can the whole organization be brought to see that every technological event is also a human event?

As of yet, very little research into any of these problems is underway. To meet the challenge of these emerging research needs, ITI is attempting to develop a national computer-linked information bank and network for researchers.

Further information about the Industrial Technology Institute may be obtained from the Executive Secretary, ITI, 2005 Baits Drive, Ann Arbor, Michigan 48109.

Joel Fadem, Institute of Industrial Relations, UCLA

Europe

Human challenge

The proper use of human ability is 'the most important project' insisted Professor H.H. Rosenbrock, F.R.S., at an International Research Symposium in May 1983 in France. His address 'The Proper Use of Human Ability: The Challenge to Engineers,' stirred such an interest in the engineering world that the International Federation of Automatic Control published it entirely in its October 1983 newsletter.

We reproduce it here for the information of our readers.

If a stranger to our industrial civilisation were to see it for the first time, he would I think be struck by a number of things. The high average level of wealth that it makes available, but also the wide disparity in the distribution of wealth. The intense desire for greater wealth, and the lack of contentment with what we have. The immense potential for greater production that somehow we are unable to tap. And after a little acquaintance, he would I think be profoundly impressed by a contrast: between the care with which we ensure that all the potentialities of machines are brought into play, while the potentialities of human beings are neglected, if not rejected.

In talking of the 'rejection' of human skill and ability, it may be thought that I exaggerate but consider a sight which can be seen in any industrialised country. A stamping press is making parts from metal sheet, and is attended by an operator. Every few seconds, the operator picks up a piece of metal and puts it in the machine. The press operates, the part is ejected and the operator puts in a new piece of metal.

Now at the present time it would be easy to find general-purpose robots which could do the operator's job. Yet any engineer who proposed to use a general-purpose robot in this way would no doubt be accused of extravagance. A robot has far greater versatility than is needed here, and much of its potential ability would be wasted. What has to be done is within the scope of a much simpler and cheaper machine, a pick-and-place device.

The contrast between our attitudes to machines and to people is striking. We should not habitually use a machine for tasks which are much beneath its ability, yet we habitually give to people jobs which involve an incomparably greater waste of ability.

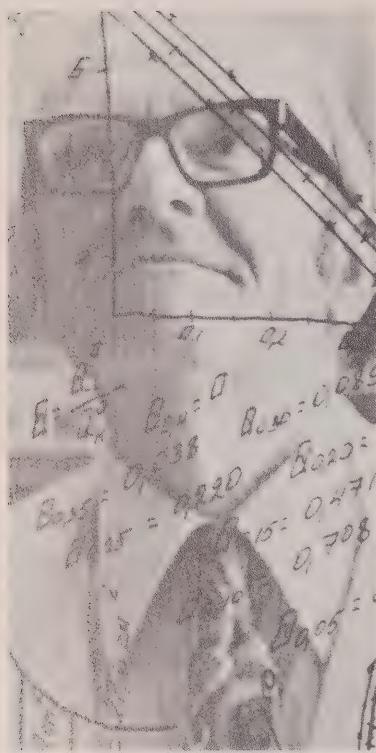
It is no answer to say, as is sometimes said, that the advances of technology inevitably require the rejection of human skill. Technology is a human product, and it is human intentions that have given it the shape that it now has. These intentions were clearly and consciously expressed by F.W. Taylor in the well-known quotation from the 'Art of cutting metals'. 'Under our system the workman is told minutely just what he is to do and how he is to do it and any improvement which he makes to the orders given to him is fatal to success.'

If we accept this attitude, then in the future it will not only be the shop-floor worker who will be 'told minutely just what he is to do.' It will also be the office worker, and the workers in banks and shops, and also many workers who have had a professional standing in design, in management, in some parts of medicine and legal work. And the 'telling minutely' will be done not by people but by computer systems, linked together in communication networks, and running 'artificial intelligence' programs into which human knowledge has been encapsulated.

Such a vision of the future must surely repel us, and there is no good reason why we should bring it to pass. It is not required by the technology that is becoming available. It does not make good use of the human and material resources that we possess. Yet if we wish to avoid it, we shall have to change the spirit in which we approach the design and development of new technology.

The change that is needed is a simple one. We must not regard human skill and ability as things to be rejected, and replaced by the machine. We must regard them as a precious resource that is to be fostered and made more productive by machines. We must not see machines as competing with people, to replace them, but as cooperating with people, to assist them.

The preservation and enhancement of human skill does not mean a



'The potentialities of human beings are neglected, if not rejected' by engineers, charges H.H. Rosenbrock.

backward-looking nostalgia for earlier skills. We have to admit that skills must change as technology changes. But this also implies that technology must allow space in which existing skills can be exercised and can evolve into the new skills that a new situation demands.

Is such a programme possible? I believe profoundly that it is, and if it were not I should no longer wish to be an engineer. Not only is it possible, but I believe that it offers better technological and economic solutions, as well as a better social and human future. It is, I suggest, the most important project that confronts technologists at the present time.

New journal series

The International Institute of Social Economics is launching a new series of journals in the QWL field. The series will include an international journal, abstracts and reviews, and will be published by MCB University Press in England under the direction of Professor B.O. Pettman. Inquiries should be directed to him at Enholmes Hall, Patrington, Hull,

North Humberside, England HU12
OPR.

Irish Centre

'QWL initiatives will be comparatively low key and will continue to be judged as peripheral rather than main core,' according to a recently released document from the Irish Productivity Centre. The deteriorating economy is threatening the positive industrial relations climate of the late 1970's that fostered the Worker Participation Act of 1977 and a 1980 government discussion paper on worker participation.

Despite this gloomy forecast, several projects are presently under way in Ireland. Guinness Brewery Council, the B & I Company and the Institute for Industrial Research and Standards are participating in programs that go far beyond traditional work councils.

Two extremely innovative programs also exist. The Quay Co-operative experiment in Cork ventures to raise the status of women in employment, while the Icarus project makes the transition from school to work easier for young people by introducing them to QWL principles.

Out of the ashes

Out of the ashes of a cannery destroyed by fire, a new structure co-designed by union and management was raised in Belgium. The Confederation of Christian Unions praised the participative effort which led to improved equipment along ergonomic lines. Job classifications and shift timetables were also improved.

According to the Union, 'Euro-Can has proven that a company, where management and workers are prepared to engage in dialogue, is not doomed to disappear because of such a disaster...'

Mary Eden-Wilson

Local solutions

If technology changed at the snails pace of organizations, 'we would still barely have proceeded beyond the first generation of computers,' Bjorn Gustavsen told a May, 1983 conference of the European

Association of National Productivity Centres in Dusseldorf.

In an effort to update organizational concepts of QWL and create 'organizations for development' to meet the challenges of microtechnology, Gustavsen emphasized the centrality of the QWL process.

Workplace democracy, is the 'right to participate in the development of solutions,' he insists. 'In terms of slogans; industrial democracy is not autonomous groups or any other particular form of organization — it is the right to choose to work in an autonomous group pattern if this is found to be in harmony with the interests of those concerned.' For that reason, he argues, 'organizational solutions must be constituted locally in each case.'

Australia

New managers

Professor Michael Waterhouse of the School of Business and Public Administration at The New South Wales Institute of Technology is seeking assistance in a research project contrasting the 'competent manager' of today with the 'democratic manager' of the future. He is interested in consultants' experiences with the analytical skills, communication methods, motivational processes and methods of conflict resolution identified with both types. Waterhouse also hopes to identify policies and practices that impede and encourage alternate management styles.

India

National centre

A July 1983 symposium on Quality of Working Life in Hyderabad led to the establishment of India's first National Centre For Quality of Life and Work.

As of January, 1984, Dr. S.B.L. Bharadwaj has become chairman and managing director of the Centre in Hyderabad, which will function in collaboration with six semi-autonomous regional centres. 'Institution-building is a time-consuming exercise,' claims Bharadwaj, 'so, without waiting for funds, bricks and mortar, we propose to start work with some research projects.'

Coming events

Quality of Working Life Facilitators' College

March 19-30, 1984
(First Session)

May 21-June 1
(Second Session)

McGill University, Montreal

These four week certificate programs provide intensive training for QWL coordinators.

For further information contact:

Rita MacDavid
McGill Human Resource
Associates, Inc.
620 Cathcart Street
Suite 1021
Montreal, H3B 1MI

Alternative Paths to Jobs, Development, Equality, Peace March 22 - 25, 1984 Toronto

Sponsored by the Canadian Centre for Policy Alternatives, this conference aims to develop overall social and economic strategy.

For conference information contact:

Canadian Centre for Policy
Alternatives
P.O. Box 4466, Station E
Ottawa, Ontario
K1S 5B4

Leadership and Authority in Organizations March 30 - April 1, 1984 Philadelphia

The Management and Behavioral Science Centre and the Washington D.C. Center of the A.K. Rice Institute are the sponsors of this three-day event.

For conference information contact:

Tom Gilmore
Associate Director
Tel: (215) 898-5736
or
Jim Krantz
Tel: (215) 898-4487

The Future of Work February 15 - April 11 TV Ontario

This series examines technological change and suggests strategies for future work.

Programs will feature Robert Reich, author of *The Next American Frontier* and Dr. Harley Shaiken, author of the soon-to-be-released *Work Crisis: Automation and Work in the Computer Age*. A \$19 registration fee includes expense of *Future Work: A Field Guide*, and access to the Telidon Tutor, a referral service on job-hunting skills.

For program information contact:

Cindy Galbraith
Information Officer
TV Ontario
Box 200, Station Q
Toronto

Participation, Productivity, and Work Life: The Issues and Alternatives for the Eighties. 1984 Programme, February - May Vancouver

The British Columbia Worklife Forum series features presentations on participative hazard management and organized labour's views of worklife improvement.

For conference information contact:

B.C. Worklife Forum
P.O. Box 46661
Station G
Vancouver, B.C.
46R 4K8
Tel: (604) 224-9371

Human Resource Planning Management Seminar: Ann Arbor, Michigan May 7-9, 1984

The University of Michigan is sponsoring this three-day seminar focussed on systems that optimize the use of human resources by linking organizational and individual needs.

For conference information contact:

John Zajac
Program Coordinator
Tel: (313) 763-1004

Sociotechnical Systems and Quality of Work Life

April 2-4, 1984

May 7-9, 1984

Chicago

Sponsored by Organizational Consultants, Inc., these seminars include design practice sessions, organizational simulations and case discussions.

For conference information contact:

Organizational Consultants,
Incorporated
P.O. Box 330145
San Francisco, California
94133
Tel: (415) 989-6189

Workplace Democracy and the Community April 8 - 14, 1984 Tel Aviv

The Israeli Centre for the Study of Industrial Democracy and Self-Management is sponsoring a workshop which will focus on community conditions and effects of work-place democracy

For conference information contact:

Professor Menachem Rosner
Institute for Kibbutz Research
Haifa University
Haifa, 31999
Israel

FOURTH WORLD PRODUCTIVITY CONGRESS May 13 - 16, 1984 Oslo, Norway

'The new world of productivity' is explored at this event featuring 58 presentations and discussions on topics related to productivity and quality of working life.

For conference information contact:

Bennett Travel Bureau
Congress Department
P.O. Box 469 - Sentrum
Oslo Norway

Tavistock Conference on Group and Organizational Effectiveness
June 17-22, 1984
Toronto

Harold Bridger of the Tavistock Institute and Dr. Birge Reichard, President of Berkeley Resources, lead sessions on organizations as open social systems and improving organizational effectiveness.

For conference information contact:

Ginty Fitt
Program Coordinator
Berkeley Development Resources Inc.
194 Berkeley Street
Toronto, Ontario
MSA 2X4
Tel: (416) 362-1072

The Second National Labor-Management Conference
June 4-6, 1984
Washington, D.C.

This conference will offer plenaries and workshops on co-operative dialogue between management and labor. Sponsored by the Federal Mediation and Conciliation Service, in co-operation with the U.S. Department of Labor and the National Association of Area Labor-

Management Committees, the conference planning committee includes representatives from the AFL-CIO and National Association of Manufacturers.

Last year's conference drew 900 participants from 38 States and Canada.

For conference information contact:

Peter L. Regner
Conference Coordinator
Federal Mediation and Conciliation Service
2100 K. Street, N.W.
Washington, D.C. 20427
Tel: (202) 653-5320

Career Planning in Organizations
June 11-13, 1984
Ann Arbor, Michigan

The University of Michigan is gearing this session to career planning personnel.

For conference information contact:

Jeanette Bierkamp Graduate School of Business Administration
1735 Washtenaw Avenue
Ann Arbor, Michigan 48104
Tel: (313) 763-9463

Ecology of Work: Improving Productivity and the Quality of Working Life
June 13 - 15, 1984
Chicago

Ways of improving quality of working life and productivity will be featured at this event, co-sponsored by the NTL Institute and the OD Network.

For conference information contact:

Tom Chase
Conference Coordinator
RFDI, Box 44A
Northwood, NH 03261
Tel: (603) 862-2018

Productivity and the Quality of Working Life in an Age of Advanced Technology
September 12 - 14, 1984
Paris

To examine the mechanisms whereby new technology can contribute to improved quality of working life is the goal of this seminar, sponsored by EUROJOBS.

For conference information contact:

M. Wallsten
EUROJOBS
S-103 30 Stockholm
Tel: 08-762 60 00

Women, Work and Computerization
September 17 - 21, 1984
Italy

The International Federation for Information Processing presents this conference as a forum for discussion on the impact of computerization on women's jobs.

For conference information contact:

Sven Jonasson
Rindögatan 8
S-115 36 Stockholm
Sweden



Winning photograph by Tom Shudra in Labatt's work photography contest.
Pictures are now on display at Simcoe library, and will form a permanent travelling exhibit.

Pioneer Knights of Labour dreamed of what might be

In *Dreaming of what might be: The Knights of Labor in Ontario, 1880-1900* (Cambridge University Press: Cambridge, 1982), G. Kealey and B. Palmer rediscover the world of modern chivalry that inspired early unionists. The Knights, they argue, spearheaded the most powerful industrial organizing drive prior to the 1940s. As well as uniting men and women, brainworkers and manual workers, skilled and unskilled, Protestant and Catholic, black and white in the workplace, they strove to create a movement culture of 'alternative, opposition and potential.' The Knights sponsored labour papers, cultural and social events, and direct links with intellectuals to foster such an integration of art and life.

The Knights took the whole world for their parish, and 'Labour Reform' to them embraced 'a much wider and more comprehensive question than the mere matter of wages and hours — that it includes everything relating to the mental, moral, and physical advancement of the worker.' This freeflowing crusading impulse led the Knights to define their mandate as the ennoblement of humanity. Knights leader T.V. Powderly vividly recalled how he took his stand against the degradation of his machinist's calling by the then-new technology of the 1880s: 'My aim was to dignify the laborer.'

The Knights used organization to nourish the human passion for independence and self-government. Their constitution set forth an aim to 'secure to the toilers a proper share of the wealth that they created; more of the leisure that rightfully belongs to them; more society advantages; more of the benefits, privileges and emoluments of the world; in a word, all those rights and privileges necessary to make them capable of enjoying, defending and perpetuating the blessings of good government.'

These commitments led the Knights to challenge the first indications of scientific management in the work-place. Hamilton's *Palladium of Labor* insisted in the 1880s that 'the creator must take precedence of the thing created,' and waxed poetical on this theme: 'Monopoly must not control, The Labor Market heart and soul.'

The Knights did not withstand the depression of the 1890s, but Palmer discusses their long-term relevance in his *Working Class Experience, The Rise and Reconstitution of Canadian Labour, 1800-1980* (Butterworth: Toronto, 1983)

In Palmer's opinion, workers' efforts to control their work environment in opposition to the dictates of scientific management remained an important theme in labour history. Many strikes in the 1900-1919 period turned, he

claims, 'on various attempts to reclaim the pride and dignity that workers sensed they were losing.' One labour journal of the period insisted that 'the one man two machines, the Taylor, Scientific, Premium, piece work and other systems introduced into the metal shops are making of men what men are supposed to make of metals.'

Unions lost sight of this critique for a number of reasons, Palmer suggests. Mass immigration undermined the traditions of an earlier workforce reared in artisanal work patterns. The mass consumption society spectator sports and suburbia distracted workers from the integrating concerns of class, community and culture. The working class, he laments, was 'unmade.'

But Palmer remains convinced that the Knight's commitment to a high and popular labour culture remains relevant today. 'The Canadian workers of the 1880s sustained a movement rooted in local initiative, diverse organizational forms, democratic practices, and a commitment to cooperation, political action, self-education, workplace militancy, and cultural autonomy. Such a rich and varied movement culture of resistance and alternative, premised on a wide-ranging solidarity, is precisely what is lacking in Canadian labour's response to the crisis of the 1980s.'



Railway workers in 1885 staged their own celebration when denied invitations to gala ceremony of The Last Spike. This was part of a culture of 'alternative, opposition and potential' nurtured by Knights of Labour, a new book argues.

Making a comeback

'Democracy in the workplace is a fundamental democratic right which should be enshrined in legislation and advanced by trade union negotiation in industry,' the Australian Council of Trade Unions claims.

Bill Ford and David Plowman, editors of *Australian Unions: An Industrial Relations Perspective* (MacMillan: South Melbourne, 1983) greet this renewed interest in industrial democracy. They believe it's central to union strategy geared to a workforce that is increasingly older, female, and concentrated in non-union sectors.

According to a position paper put out by the Australian National University entitled 'The Democratization of Work in Australia,' such an orientation to industrial democracy is not new. During the late 1960s and early 1970s, this paper argues, Australia enjoyed its 'greatest experimentation, evaluation and

diffusion of industrial democracy.' Then interest and activity in QWL levelled off.

Why a comeback now? Both studies imply that QWL is becoming integrated with new industrial relations strategies of the 1980s. Australian companies cannot compete without relying more on the intelligence of the workforce, they say. Nor can the economy be restructured on the basis of new technology and new concerns for health and safety without an orientation to QWL.

Health and safety is highlighted in the February 1983 'statement of accord' put out by the governing Australian Labour Party and the ACTU.

The statement maintains that 'health and safety programs are predicated on the principles that the work environment needs to be adapted and designed to suit the needs of the people working in it; that employers have a basic responsibility to provide

a healthy, safe and stress-free work environment, and that workers have a right to know what hazards they are exposed to.'

The treatment of health and safety makes explicit reference to the comeback of QWL programs and calls for union-management involvement in setting standards to guide such improvement.

Renewed interest in employee participation spawned two 1983 reports from the Australian Government Publishing Service (Canberra 1983). E. Gillies' *Employee Participation and Decision Making Structures*, discusses participation in relation to organizational centralization and decentralization. G. O'Brien's, *Employee Participation in an Assembly Line Factory*, evaluates a six year project in an Australian food factory.

A bargain deal

'First and foremost, we view worker participation as another dimension of collective bargaining,' wrote J. Carmichael and M. Taylor in the Michigan Quality of Work Life Council's *Work Life Review* (2,1 March 1983). The two union executives have been active in the Newspaper Guild in Minneapolis and its ten-year experiment with QWL.

As a result of QWL initiatives, reporters won major advances in their ability to shape managerial, layout and editorial decisions. But Carmichael and Taylor disagree with those who exaggerate the importance of trust in launching such projects. 'While we recognize the value of trust and commitment, we just don't think of them as vital necessities — at least no more vital than in collective bargaining.'

They emphasize the importance of changing through a process that is already familiar to most people, namely collective bargaining. When trust is high, the process seems to be smoother, the progress faster. But even at the lowest ebb of trust, the process continues.

The same issue of *Work Life Review* contains reports from involved unionists, supervisors and managers in private and public sector QWL projects.



Miller Services

Western Australian workers operate rotary percussion drill to explore for nickel, late 1960s. Now, Australians are re-exploring possibilities for QWL, according to new studies.

Spaced out

If North Americans are 'spaced out' by Japanese management practices, there's good reason. A study of Japanese Homes and Gardens by M. Maruyama suggests that distinct architectural principles are part of a landscape that's reflected in work organization.

Writing in the June, 1983 issue of *Futures*, the *Journal of Forecasting*

are becoming increasingly common in Japan, even though little is known of them in the west. K. Koike and T. Lida, for instance, have exposed the absence of safeguards for older workers. No seniority rules apply to layoffs or to recall rights, they claim.

After years of uncritical admiration, this kind of criticism of Japanese management practices is beginning to get a hearing. John Junkerman looked at the 'blue sky management'

T. Mroizkowski warns against North American imitation of Japanese practices in *Relations Industrielles/Industrial Relations* (38, 2, 1983). He regrets that the European co-determination model has been 'neglected in the current preoccupation with Japan,' and argues that 'participative worker democracy presents an alternative to the paternalistic, management-dominated mode of participation.'



Japanese trademarks symbolize spatial concepts in work organization, according to one author.

and Planning, Maruyama argues that Japanese architecture is characterized by boundarylessness, convertability and connectability. Design principles emphasize avoidance of repetition, harmony of dissimilar elements and interrelationships of diverse elements. By contrast, western architecture highlights symmetry, hierarchy and repetition, and designers work toward consistency of main themes in sub-themes.

The unconscious impulses of Japanese culture, Maruyama believes, are revealed in such standard workpractices as job rotation and diffused responsibility. By contrast, western organizational principles are based on strict boundaries, specialized functions and repetition.

Maruyama also reports criticisms of the Japanese management system that

philosophy and reality of one company in the Summer, 1983 issue of *Working Papers*. The company slogan implored workers to 'take pride in turning a new page of history with your hands... You are not merely a gear in a big organization, but a hero.' Reality was less heroic, Junkerman found, and was based on environmental destruction of pollution and a dual labour market which assigns up to 35 percent of the workforce to dead-end jobs, devoid of security, benefits or organization. In 1959, Junkerman found, the steelworkers' union received a beating that led to bargaining processes known as 'first and final offer' and 'one-answer bargaining.' The Japanese brand of industrial harmony, he concludes, is based on a dual economy and defeated unions now dominated by foremen.

Japanese managers themselves are aware of problems facing their system. Changing demographic and cultural patterns will be a major challenge of the decade ahead, argues T. Amaya in *Human Resource Development in Industry* (Japan Institute of Labour: Tokyo, 1983). By 1988, only 33 percent of university graduates will reach management levels they are trained for, he says. Moreover, 51 percent of the workforce is not oriented to promotion. 'The task for company policy makers,' Amaya concludes, 'is to fully utilize these latent skills in the workforce.' Similar problems are reviewed in T. Magami, *Labor Management Communication at the Workshop Level: Japanese Industrial Relations Survey* (Japan Institute of Labour: Tokyo, 1983).

Women fight for better work

Canadian women have entered the paid labour force in unprecedented numbers over the last decade, and they've already introduced new perspectives and demands on the nature and meaning of work. Material in three new Canadian books indicates that women will be a significant constituency promoting QWL values.

Although daycare and equal pay controversies have attracted most legislative attention on women's issues, women's expectations about work itself have also invigorated our understanding of the organization and potential significance of work.

J. Penney's *Hard Earned Wages* is significantly subtitled *Women Fighting for Better Work* (Women's Press: Toronto, 1983). Her collection of interviews with women in a variety of 'traditional' and 'non-traditional' jobs begins with a tribute to the liberatory potential of work, a sensitivity that is perhaps best appreciated by those historically denied access to paying jobs. 'Good work enables us to use our gifts, to develop our skills, to become proud and confident of our abilities,' Penny insists. 'It fosters responsibility and cooperation among us, a sense of community with co-workers.'

Kate Braid, who asks 'what's a nice girl like me' doing in a lumber mill, answers in the same vein. Her essay in P. Schom-Moffatt and C. Telfer's anthology, *The Women's Workbook* (Between The Lines: Toronto, 1983) relates her discovery that 'totally apart from making the best money I've ever made, I loved physical labour. I loved the rhythms of working, the changes my body went through, leaving me feeling strong and healthy and more confident about my physical self.'

Braid also 'liked the simplicity of working with objects at which you didn't have to smile or be charming.' In a work setting free from the dependency of 'helping' and 'support' roles, she 'loved the camaraderie of working on a crew, the trust and pride that came from relying on each other, pitting our strength and skills against log and machine and coming out with loads of finished lumber.'



Shell

Shell Sarnia worker straps boxes storing polypropylene, a non-traditional job for women. Women's hopes for social independence may become driving force behind workplace improvements, material in three new books suggest.

Perhaps the 'women's movement work ethic' will replace the 'Protestant work ethic' by injecting a powerful secular sense of 'calling' or 'vocation' into the meaning of work. But at the present time, many women's hopes — that work experience could be dynamically linked to the development of independence and character — are being dashed.

One fish-processing worker interviewed by Penny claimed she could only survive the monotony with daydreams and fantasies. 'If you're a person who can crawl around in your own head, you're okay,' she said. A postal sorter, interviewed for the same book, complained that 'I had never done work which was dehumanizing and as boring, and to which my presence or absence as a person made no difference.'

Some of these disappointments underline social work professor Helen Levine's critique of dominant theories on stress. 'Prior to the last decade, the subjects of stress were men, particularly powerful men,' she writes in *The Women's Workbook*. 'Men's

troubles were seen not as a mental health issue, but as a result of overwork, or too much responsibility.'

This focus on male managerial stress, Levine claims, led to a double standard. In this scenario, male managers experienced stress because of their demanding jobs; women, supposedly subject to none of these stressors, were 'prone to depression' or 'went crazy' because of personality defects. All the new research, Levine insists, points to the direct relation between women's working conditions and stress.

The concentration of women in occupations most vulnerable to the microtech revolution leads Jane Stinson to worry what will happen 'when the chip hits the fan.' Centering her comments on the revolution in work organization, Stinson's essay in *The Women's Workbook* calls for 'a reversal of the trend toward centralization and breaking jobs down into simple parts performed by different workers.'

A third anthology, L. Briskin and L. Yanz's *Union Sisters, Women in the Labour Movement* (Womens Press: Toronto, 1983), also raises concerns that touch the perimeter of QWL. D. Field's discussion of sexual harassment, for instance, raises questions about co-worker, as distinct from supervisory, sexual harassment. Field suggests that a solution will require complete transformation of the culture of the workplace. 'As long as workers do not have meaningful input into the structure and organization of our workplace,' she argues, 'talking about a completely positive working environment is a bit unrealistic.'

L. Briskin's essay on 'women's challenge to organized labour' describes the women's movement as independent from major social institutions and recognized power bases. It has developed new styles of 'grassroots' organizing, and 'networking,' and has promoted new concepts of decentralized direct democracy which highlight the need for social unionism.

A long way (baby)

Women have come a long way in the workplace (baby), but not in their ability to influence decisions, a

Hi-tech jitters

Contrary to popular belief, unions generally support technological change. This finding comes from a survey conducted by University of Calgary professor Stephen Peitchinis, published in *Relations Industrielles* (38, 1, 1983). Peitchinis insists that unions are 'aware of the close relationship between technological change and productivity, and since increased productivity enables them to provide increased wages and improvements in benefits to their members, unions cooperate with management in the implementation of technological changes.'

Unions do oppose new technology when improperly implemented, we see from Marc Belanger's special issue of *The Facts* (Cupe : Ottawa, 1983). 'At present,' says Belanger, companies introduce new technology 'to improve productivity and profits without consideration of the human element.'

Obtaining the union's blessing over the use of new technology requires a fundamental change in the workplace insists Belanger. 'Workers deserve to be involved and consulted in all parts of the enterprise. In addition, they should be a part of all design processes -- from equipment to the workplace itself.' The Cupe paper also calls for the establishment of a Technology Committee in every worksite that would monitor changes in equipment or software, assess any technological change, help negotiate agreements with the employer, and educate the membership about the technology.

Peitchinis' survey confirms that unions resist technological change unless 'negotiations of satisfactory accommodations for workers who will be affected are conducted.'

Negotiated agreements, says Peitchinis, show a major gap in what unions have sought and in what they have actually achieved.

Peitchinis favors 'change in the approaches to the formulation and implementation of accommodative arrangements.' He suggests that 'if the bargaining process does not produce adequate procedures, the legislative process must.'

Women's satisfaction with work dropped since 1977, a new study claims, because of lack of advancement and influence.

survey in *The Canadian Business Review* (10, 2, Summer 1983), reveals.

In 'Differences Between Male and Female Attitudes Toward Work', Tom Atkinson, Senior Project Director of Hay Associates Canada Limited, found women to be more satisfied with their work than men in 1977, but less satisfied in 1981. In addition, women in 1981 had less influence than they did in 1977.

'Previous research indicates that decline in satisfaction is a result

of male/female focus on different aspects of work', claims Atkinson, 'but our research identifies opportunities for advancement and ability to influence major decisions of superiors as criteria for decline in morale of both men/women.'

For the future, Atkinson predicts women will change employers frequently when advancement opportunities are lacking, while males will continue to remain with the same employer to advance within the ranks.

Holberg

General Electric



Computer overview of GE's \$16 million automated frame machining facility in Erie, PA. 'Workers deserve to be involved and consulted,' on technological change, a new union report insists.

New-tech atlas

New technology revamps psychological as well as physical conditions of work. So, argues a Swedish publication, 'a positive approach to technical potential' will have to work on both levels.

The paper, *Swedish Programme On New Technology and Human Resources* (Swedish Work Environment Fund: Sweden, 1983) outlines a five-year pilot project to illustrate how new technology can enrich worklife.

The impact of new technology on the working environment is a world-wide concern.

Steven Deutsch, in his paper 'Unions and Technological Change: International Perspectives' (in Donald Kennedy, et al, (eds.) *Labor and Technology: Union Responses to Changing Environments*. Penn. State University: University Park, 1982), places Norway and Sweden on the leading edge of dealing with issues related to new technology.

The key in the Scandinavian system is 'planning, labor sharing information with management and helping to shape the work environment,' explains Deutsch. These are an outgrowth of the Norwegian Work Environment Act of 1977.

The issue of computers and worklife in Sweden encouraged a Parliamentary Commission to study the effects of new technology, and a policy statement adopted by the Swedish Labor Federation at its 1981 Congress which in addition to calling for better information sharing with the union, argues that more workers should be trained in computing to improve job content and to use new tech to 'serve the principle of democracy.'

By contrast, Deutsch emphasizes how strong unions in England and Australia have pushed to gain collectively bargained agreements. As well, he states that British unions such as the Association of Professional, Executive, Clerical and Computer Staff (APEX) call for governmental policy on new tech usage as an augmentation to collective bargaining.

In Australia, unions are trying to use agreements as a vehicle to increase their involvement in decisions concerning implementation. In a

special issue of the *Bulletin of Labour Relations*, *Technological Change and Industrial Relations: An International Symposium* (Kluwer Law and Taxation Publishers: Boston, 1983), Russel Lansbury and Edward Davis reveal how in Australia, 'employers generally implement changes then wait to see what reaction they receive' and despite government interest, 'few employers have sought to involve unions in decisions on new technology.'

Lansbury and Davis discuss the establishment of a Committee of Inquiry into Technological Change in Australia which recommends notification/consultation, and calls for a Bureau of Working Environment to improve the quality of working life. The government accepted this in principle, the authors note, but has restricted application to the public sector.

(An update on Australia is also available in Lansbury's new report, *Technological Change and Employee Participation* (Australian Government Publishing Service: Canberra, 1983).

In Denmark, an agreement exists for the private sector, and for banking. One for municipal employees is in the works, and Deutsch is optimistic that soon all sectors will be covered.

Yet, Reinhard Lund, guest author in the *Bulletin of Labor Relations* report, associates this labour-management co-operation as 'oriented towards boosting Danish competitiveness' and reports that 'unions have gained little influence by signing technology agreements.'

Japan is a pioneer of new technology, claims *Bulletin of Labor Relations* author Yasuo Kuwahara. Yet there has been little friction between labour and management, he argues, because of company commitments to life-long employment.

(This review is supplemented by information in the *Japan Labor Bulletin* (22,11, November 1983). It reports on a recently drafted statement of the Federation of Independent Unions of Japan which outlines union policies for prior consultation, employment stability, and the strengthening of health and safety initiatives. In addition, the *Japan Labor Bulletin* (22,12, December 1983) states that 'prior consultation on the introduction of new technologies, which is spreading in the automotive and electrical industries, will be introduced in the distribution industries including supermarkets.'

The story in Belgium and Italy also receive coverage in the *Bulletin of Labor Relations*. Roger Blanpain reveals how unions and employers in Belgium consult on the effects of new technology on jobs, the adjustment of organization of work and quality of work life, but he adds, 'workers do not have the right to negotiate technological change.'

Claudio Pellegrini sees the level of union-management conflict in Italy as a barrier to serious discussion on future work organization, but he holds out hope that new government bills for disclosure may open the doors to dialogue.

Nancy Della-Nebbia



New technology revamps psychological as well as physical conditions of work, a Swedish study claims. Solutions will have to be sought on both levels.

ETHICS needed

What's the difference between office automation and climbing Mount Everest, ask two authors of *Office Today*, an advertising supplement in the *New York Times*. At least climbing Mount Everest has a point to it!

It seems that too many companies are using new office technology 'because it is there,' and without thinking through the consequences. And it's causing some people to climb the wall.

At its worst, it's led to outbreaks of cyberophobia and cyberphilia. Cyberphilia, for those who want to interface with the new linguistics of new technology, is blind faith in new technology fixes. Cyberophobia, the chief obstacle to successful implementation of new technology, is the fear of office automation.

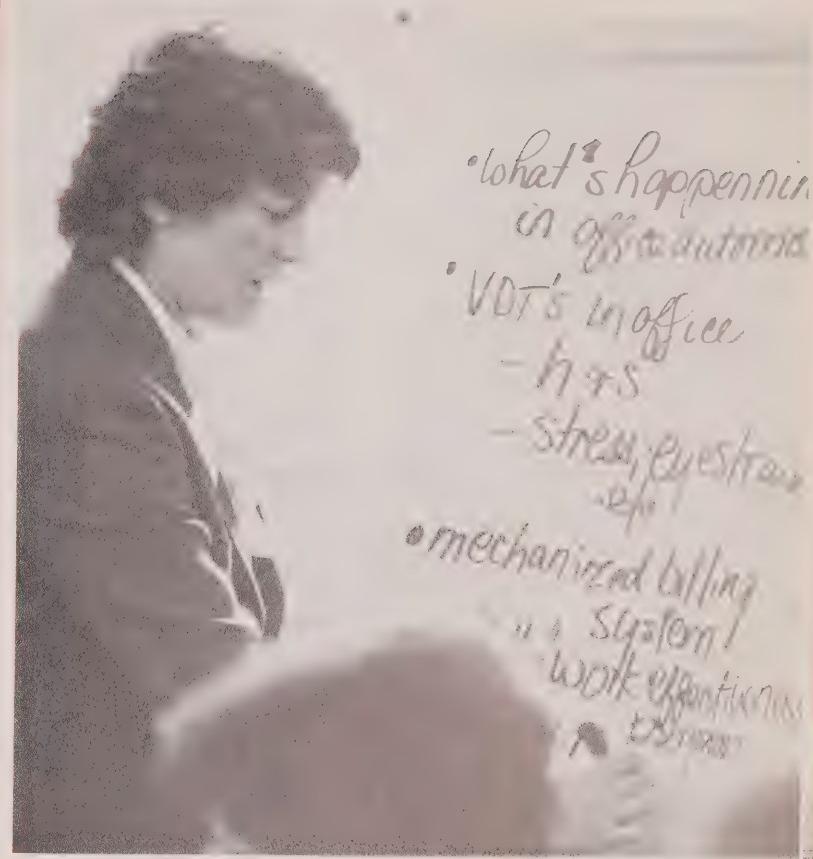
In an advertising supplement for new office hardware, this is refreshing skepticism indeed. It seems to be part of a new consensus that, to avoid what *Office Today* calls 'organizational chaos,' employees have to be directly involved in confronting human and organizational issues in the implementation process.

A new series of books by Enid Mumford, *Designing Participatively*, *Designing Human Systems*, and *Designing Secretaries*, all published by the Manchester Business School in 1983, provides exceptionally well-documented accounts of office redesigns in unionized settings.

Mumford has developed a systems design methodology called ETHICS. Her concept of Effective Technical and Human Implementation of Computer-based Systems focusses on:

- a high level of employee involvement;
- promotion of job satisfaction as a specific system objective;
- parallel installation of organizational and technical design.

Good social system design is seen as integral to successful technical redesign in the April, 1983 issue of *Management Review*, where W. Galitz and D. Cirillo outline their strategy for a comprehensive 'behavioural-technical system.' The authors warn that 'VDT's may be hazardous to productivity,' and attribute 80 percent of office



Jan Mears leads QWL Centre seminar on new office technology. She reports on the new ETHICS promoted by latest writings in the field.

automation failures to 'people problems.' They emphasize such ergonomic measures as proper work station design, proper lighting, and frequent breaks (at least 15 minutes every two hours).

The dangers of poor social design have also aroused the concern of the University of Toronto's medical faculty. The October, 1983 issue of their journal, *Health News*, reviews common physical complaints of VDT users. The article takes aim at the 'technical fix' mentality, and draws attention to employees' fears about unemployment, monitoring, and loss of job control. Employee involvement in the design of the electronic workplace is recommended.

In the August 1983 issue of the *Employment Gazette*, G. White identifies the critical managerial choices in implementing new technology:

- an autocratic/persuasive strategy where senior management and specialists decide
- a consultative strategy where management decides, after

consultation with the workers and other key personnel a participative strategy where direct involvement is fostered, beginning with the decision to purchase new technology.

White favors the participative strategy.

Despite these conclusions of writers and consultants in the field, there are few indications that their ideas have a wide corporate following. White's survey of 'Technological changes and the content of jobs' in the August 1983 issue of *Employment Gazette* confirms that time stood still in design strategies from 1955 to 1979. In 1955, U.S. firms designed jobs to minimize the time required, minimize the skill required, achieve maximum specialization of skills, and minimize training. The same Taylorist recipe was equally dominant in 1979. Perhaps that's why so many automated offices are in a technological stew.

Jan Mears

QWL goes public

The public sector has expanded so quickly in the last 25 years, and in such a turbulent environment in terms of public attitudes toward the size and role of government, that little time has been allowed to adjust to new approaches to public sector workers.

Two new books begin to address these questions. Neil Herrick's anthology, *Improving Government: Experiments with Quality of Working Life Systems* (Praeger: New York, 1983) provides descriptions of most of the public sector QWL projects in North America. The case studies are used to illustrate important elements of the QWL process and draw critical learnings from their experience. Some of these learnings, such as D. Ronchi and W. Morgan's distinction between negotiation and bargaining, constitute important breakthroughs for intervenors in QWL processes. But, the editor insists, 'a knowledge of the specific societal conditions that must be changed in order for social change to occur overshadows them in importance.'

Many of the essays try to deal with the slow response to QWL in the public sector. C. Jones, writing on the federal experience in Canada, argues that the weakness of union organization must be corrected. Otherwise government job classifications — which by statute are non-negotiable — undermine the possibility of job design. 'The current labour-management relationship will not support QWL because of a fundamental flaw,' Jones concludes, 'it is too one-sided. QWL is a bilateral process and simply cannot take place where one side possesses virtually absolute control.'

Herrick agrees that this diagnosis applies equally to the U.S., though he adds his concern that lack of internal democracy within unions has also slowed down diffusion. Herrick also suggests that the lack of traditional market incentives in the public sector is responsible for the lag relative to private sector experimentation with QWL. The lack of a dollar value of production, he claims, 'prevents the development of budgetary systems through which organizations could be rewarded, rather than penalized (such as through budget decreases), for increases in efficiency resulting from QWL.' Moreover, 'it has hindered the accumulation of any bottom-line evidence that public sector QWL

systems result in higher levels of labor productivity.'

In his conclusion, Herrick argues for new labour legislation to increase the power of unions and to increase incentives for increased productivity.

Europeans already have some experience with elements of this approach, and this experience provides one of the themes of C. von Otter's anthology, *Worker Participation in the Public Sector* (Almqvist and Wishell International: Stockholm, 1983). According to the contributors to this book, Sweden's new collective bargaining laws have yet to reveal their impact. To date, it is claimed, the laws have increased union access to information but have not shifted power either indirectly to unions or directly to employees.

This mixed experience has not lessened their enthusiasm for worker co-determination of the work environment in the public sector. One writer sees the possibility of 'sunshine



Ontario Hydro

Can public utility workers climb to the heights of QWL? Two new books look at the European and North American experience.

bargaining — the opening up of the process of collective bargaining so that local inhabitants can observe and even participate.' (This direction is also endorsed by a union contributor to Herrick's book, who argues that 'organized labor must act as the watchdog of both the taxpayer and the employees by bringing pressure to bear on management through the elected representatives of the taxpayers. Further, these elected representatives should provide the unions with a quid pro quo in the form of a more favorable environment in which to organize and operate.)

Von Otter himself discusses work reform in the public sector as a vehicle to re-create and safeguard a labour culture of social solidarity. This opinion is seconded by U. Ressner, who hopes that unions can 'broaden their classical role as salesmen of each other's labor.' Writing on behalf of care workers with the mentally retarded, Ressner argues that unionists should link up with the consumers of their services, 'participate in and promote the ideological debate on care and... develop long-range perspectives and ideas for the future.'

Unlike Herrick, von Otter does not discuss the absence of a 'bottom line' to promote reform in the public sector. He sees no conflict between his ideas on work reform and the declared purposes of the public sector. 'If the goals for the public sector are to promote social democracy and welfare,' he writes, 'then it seems a paradox that public employees are expected to work in organizations that do not encourage democracy and participation at the workplace.'

Fad or trend?

The new craze for participative management rhetoric, charge S. Levitan and C. Johnson, 'is more of a placebo than a panacea.' Reviewing the rash of quality circles and other work changes brought about by 'double-concession bargaining' over the last few years, they suspect it's the 'same old attempts to increase workers' commitment to company goals without requiring managers to accept the burdens and risks of full participation.'

Writing in the September -October 1983 issue of *Harvard Business*

Review, they claim that 'true cooperation between labor and management would give workers not only the satisfaction and dignity of participation but also tangible rights and benefits in return for increasing their level of commitment and responsibility within the enterprise. Few companies have taken the challenge of participative management this seriously.'

J. Simmons and W. Mares, authors of *Working Together* (Knopf: New York, 1983), share these concerns and fears. They worry that the craze for Japanese-style quality circles reveals a national obsession with fads. 'Just add a few drops of the milk of human kindness, stir in a little overtime pay,

rm the concoction with a big presentation to management, and voila! instant employee involvement. It's cheap. It's quick. Management doesn't have to surrender any real power.'

Their thorough and popularly presented overview of developments in the QWL area does hold out some prospects for optimism, however. 'Our thesis is that a major cause of the current economic problems with quality and productivity lies in the strong division between the thinkers and the doers, between managers and the managed, between owners and non-owners,' they write. These 'problems of the workplace are not new. What is new, however, is the understanding that if American organizations do not deal more effectively with their problems, an increasing number of them face decline and possible extinction.'

Gearing up

The North American auto industry was geared up for its drive toward QWL.

J. Otis, a manager of industrial engineering at American Motors, says productivity can't be improved through authoritarian management using technology and fractionalized jobs. Writing in the *Advanced Management Journal* (Summer, 1983), he calls for joint union-management involvement.

Bill Duffy, executive consultant on organizational development and research at GM, agrees. In explaining his socio-technical systems approach, he maintains that 'involving union and hourly people in plant design

planning is not just a nice gesture, it's an important, innovative step forward in the plant design process.'

Writing in the *Work Life Review* (2, 1, 1983), he claims that his experience demonstrates 'that the most effective organizations — in terms of meeting both human and technical needs — are those that are less hierarchical and that foster teamwork at all levels.'

G.M. now publishes a regular *QWL Quarterly*. The July, 1983 issue quotes one high-ranking official as saying 'the impetus for QWL must come from management involvement, not management support. In this area especially, "support" from afar is no support at all.'

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Editorial

continued from page 2

all kinds of statements about QWL, which have nothing to do with QWL as such. Instead, 'QWL' becomes some kind of catchword. The spectrum of misuses ranges from clearly false applications, where the activity referred to is in obvious contradiction to the values and principles of QWL — such as the use of 'worker involvement programs' to decertify unions — to misuses where the term refers to views about various conditions necessary to engage in a QWL process. For instance, some people think they are commenting on QWL when in actual fact they are making a judgement about the motivations of the other party, or about the extent they can be trusted.

Hidden behind these views about motivation and trust, we often find uncertainty and fear about one's ability to control situations. Feelings of insecurity and lack of power are often expressed by way of negative statements about QWL.

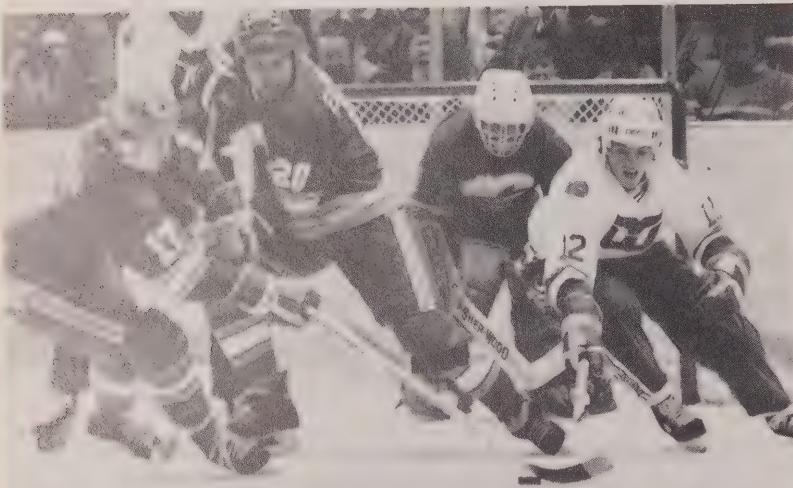
Another example of misuse of the term QWL is seen when management or unions declare themselves 'against QWL,' when in fact they are expressing unease about new demands which will be made on them. It has to do with personal competence and the ability of the management or union system to cope with new and somewhat unpredictable demands.

In both these illustrations, people are not so much criticizing QWL; they are expressing their own fears and uncertainties about moving into new situations.

This brief discussion of different types of confusion only gives a limited illustration of different attitudes, positions and strategies behind the term QWL. The actual reality of QWL can be much more complex, but it can also be much simpler. Union, management and workers who are actively involved in improving QWL, and who work together and learn in the shared reality of the workplace, are usually not confused.

I hope that this issue of *Focus* will make a further contribution towards a badly needed greater transparency in the debate about QWL.

More than just a game



Canapress

by Wayne Roberts and Tom Rankin

It was hockey night in Minsk. Sudden-death overtime in the final game of the 1972 series. Then Paul Henderson broke the tie for us. Our own best players in our own best game had just scraped by.

A regular Team Canada selection against the Russians, goaltender Ken Dryden has just written a provocative bestseller on *The Game*. Recalling the trauma as one country's style of hockey confronted another's, Dryden scores the style of play that led to the crisis. His book can be taken at several levels. But on one level at least, it's a prescription for the key values of QWL.

During the 1960s, Dryden recalls, Canadian hockey used the speedup to improve 'productivity.' The old 'dump-and-chase' game picked up speed, and turned to shorter shifts and new techniques such as slapshots. But no-one thought of changing styles of hockey, of playing smarter rather than harder. Hockey became an adrenalin game and adrenalin substituted for finesse, says Dryden.

The game went out of control. 'It was all a matter of who got there first, with how many, and how much punishment you could take,' he writes. Violence, the dark side of

adrenalin, flared 'from the absence of intervention in our lives. We let a game follow its intuitive path, pretending to be powerless, then simply live with its results.'

This style of hockey could not stand up to international competition. It wasn't a matter of working harder. Canadians tried to turn up the speed. 'Only this time we couldn't go high enough. We couldn't move our bodies fast enough or long enough,' says Dryden. 'Too often the puck moved past us just as we arrived.'

To regain the lead, Canadians had to learn a fundamentally different style, attitude and pattern. Hockey, as played internationally, was not a game of possession but of passing, not of huffing and puffing but flexibility, not pushing and shoving but control. It had become a 'transition game.' There were new questions and new secrets to success, claims Dryden. 'How fast can you set up. How fast can you strike. What instant patterns you can create. How you turn simple advantage into something permanent.'

A transition game requires a special team, Dryden notes. It must balance routine and non-routine skills. It must develop players with several skills, with freedom and competence to innovate and to adjust quickly.

This required breaking with the past, building new systems, right through from training to rewards. Of course, Dryden is discussing the requirements of all innovative, high-performance systems. Dump-and-chase organizations that rely on brawn rather than skill, speed rather than flexibility, last-minute luck in a scramble rather than teamwork planning and co-ordination, just can't meet the competition. And if you try to speed up those organizations, it just leads to injuries and penalties.

Dynamic organizations can stickhandle in tight situations, change formation when an obstacle is confronted, launch coordinated powerplays. But that takes teamwork, training and a special type of coaching: coaching, says Dryden, that builds on the two-way relationship between people and systems. Dryden's book is strictly about hockey. But it would be tragic if it went by the boards as just that. Because all great sports are metaphors for work. Whether it's logrolling or hockey, plowmatches or football, sports re-create the style, passions and compulsions of work.

Hockey is special to Canadians — a dance of life in the dead of winter. Millions of kids playing shinny hockey on outdoor ice, and millions of fans watching the game on TV, learn basic values about teamwork and coaching, hogging and passing, winning and losing. They can also learn about basic principles that underlie organizations, principles that determine whether organizations grow or die.

Canada has just slipped into eleventh place on the economic dynamism scoreboard, fourteenth place on outward orientation and fifteenth place on innovation and forward orientation, according to the European Management Forum's 1984 world economic survey. We rate low in all these areas, despite high standings in human and natural resources.

If we're going to come up from behind, these figures tell us, we'll have to stop sliding by the seat of our pants. The lessons we've begun to learn in hockey will have to be applied to the workplace.



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The emergence of QWL domains



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Editorial

The emergence of QWL domains

The meaning of QWL and the need for more participatory forms of work organization have not lost anything of their significance today. Organizational effectiveness, if not survival, and the democratization of work are directly correlated.

Activities in North America aimed at union-management cooperation and increased participation of workers in the decision-making process affecting their jobs and work environments must now be counted in their thousands. Today there is more experience, more competence, and, what is so very important, there is more confidence in the QWL process.

Ten years ago the emphasis was on initiating projects. Now, in addition to initiating, we are also very much concerned with sustaining and diffusing QWL. Consequently, management and unions are faced with different and more complex problems involving "total system" change.

Ten years ago the question was: What is QWL and why is it important? That phase was followed by a period where the focus was on methodological questions; i.e. how does one do it? Today, we know how to design effective work organizations that are fully congruent with the basic values of democratic society.

The question we are faced with today, however, is increasingly one of political will: Do we dare do it? The experiences in Europe and North America have shown consistently that the development and diffusion of the democratization of work cannot take place without leadership. It is not sufficient just to approve, support or endorse QWL. We are dealing with a process of cultural change that requires the active commitment of all stakeholders.

Although the quality of leadership is a very critical condition for developing QWL, it is also becoming apparent that

it is not a sufficient condition. There are other factors emerging which play an important role. We are increasingly encountering questions that have a contextual significance. By that we mean environmental processes, developments and systems that impinge on QWL and which, at the same time, are also being influenced by QWL. They are phenomena that manifest themselves on the meso (or mid) and macro level of society. They are significant because they constitute critical conditions for developing and maintaining QWL on the organizational level.

These new developments involve issues that are too extensive, too many-sided and too much a part of public concern to be coped with by any single organization. They denote new units of concern, analysis and action, which encompass societal problem areas that constitute domains of common concern for a number of organizations. They can be called QWL domains because they express specifically the relationship between QWL and these larger areas of common concern.

These various QWL domains constitute the processes of interdependence between the values, principles and notions of the new form of work organization (QWL) and such fields as industrial relations, high technology, the educational system, health and safety, community development, feminism, employment equity, etc.

We believe that QWL is now moving into a phase where, in addition to the question of job and organizational design, we will be faced with these new kinds of domain-based issues.

In this issue of **QWL FOCUS**, we will be taking a first look at some of these domains and their significance for the development of quality of working life.

Hans van Beinum



Integrating QWL and collective bargaining

by Tom Rankin

The QWL field in North America is at a critical stage in its development. Much has been accomplished in the last 10 years — there has been an explosion of QWL activity. Many new forms of work organization are no longer viewed as isolated experiments but as key components of management and union strategies for survival and growth.

However, for QWL to become more firmly rooted and widespread, a "more-of-the-same" approach will not work. If QWL is to play its part in helping management, union and society at large deal with the workplace issues of the next decade — such as realizing the full, positive potential of new technologies — it must change with the times. In fact, some of the key ground rules that have guided the initial phase of quality of working life are now out of date — they are blocking further progress.

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Two of these ground rules are the rigid separation of contract negotiation and administration from QWL and the parallel system approach to developing innovative forms of work organization. For quality of working life to move into its next phase, management and union must be prepared to change all the structures and processes that make up their relationship, including the contract and the day-to-day organization of the workplace. In short, what is required is integration of QWL and collective bargaining.

QWL and the contract

Union and management, in designing or redesigning organizations according to the principles and values of QWL, have had to deal with the basic question of the relation between QWL and the traditional system of contract administration and negotiation. The commonly accepted (but not universal) practice has been to separate one from the other. This approach has proved a useful way of providing many unions and managements the political protection and psychological comfort necessary to get

involved with QWL. However, this approach is fundamentally flawed. It does not take into account that quality of working life is a developing process whose boundaries cannot be fixed. As well, it ignores the fact that an organization is a system whose parts are interconnected. In fact, this approach explains, in part, the high number (roughly 40%) of QWL redesign projects that do not survive beyond two or three years.

While the separation of QWL and contract negotiation and administration may have been politically and psychologically useful, it is perhaps best described as a convenient fiction. Every QWL project worth its salt has strayed into issues covered by the contract. The reasons for these "transgressions" have little to do with management's desire to bypass the union and "negotiate" directly with the workers. Nor have they to do with union attempts to "go shopping" for what they couldn't get at the bargaining table. Instead, the overlap between the two processes is an inevitable outcome of a mature QWL process and the systemic nature of organizations.

Improving organization effectiveness and worker participation is, of course, possible without altering the contract. However, the degree of improvement is significantly limited as long as the collective agreement is out of bounds. This is because certain contract clauses, for instance those dealing with work rules — standard features of most collective agreements — have a direct bearing on both organization effectiveness and worker participation. As the QWL process matures it inevitably attempts to deal with these clauses.

It is not a question of whether the two "separate" processes of QWL and contract negotiation and administration will collide, it is a question of when. In industries where strong unions have negotiated elaborate contracts (e.g. automobile), it is sooner rather than later. In the public sector, with its more recently formed unions and restricted bargaining scope, the collision is delayed but not avoided. Moreover, the systemic nature of organizations also contributes to the overlap between the two "separate" processes.

... a system of interdependent parts, an organization "naturally" strives to obtain the best fit possible among its parts. In fact, this fit is a major factor in deter-

mining overall organization effectiveness. Many items currently covered in most collective agreements (e.g. overtime equalization systems) are better suited to the ongoing, open problem-solving negotiations of QWL, than the periodic, close-to-the-vest trade-off negotiations of the contract. Not surprisingly, such items gravitate to the QWL agenda.

Attempts to hide the problem prove futile and the steering committee inevitably becomes aware of the situation. They almost always diagnose a "communication problem" and respond by restating the project rules, often through further "training." At this point one of two things can happen: The project either withers away, unable to survive on what is left over from the

• • • *THE SEPARATION OF QWL AND CONTRACT NEGOTIATION AND ADMINISTRATION... IS PERHAPS BEST DESCRIBED AS A CONVENIENT FICTION.*

When the inevitable spillover between QWL and contract negotiation and administration occurs, it frequently results in either the slow and quiet or quick and noisy termination of the project. The scenario is usually as follows: The initial signs of the spillover are first noticed by the front line union and management officials who hasten to correct the "problem." At the same time they conceal its existence from their superiors who are usually members of the joint steering committee overseeing the project.

bargaining table, or explodes when either union or management interprets the spillover as an attempt by the other party to undermine the agreement.

QWL: a set of design guidelines

In private, some union and management officials will acknowledge that in certain circumstances the QWL process has modified, and should be allowed to modify, the collective agreement. Such was the case in the Ruston Mine/UMW case in the early 1970s and in two recent GM/UAW projects at the Livonia Cadillac engine plant and at the Delco Remy spark plug plant in New York State. Modifying the collective agreement, however, is a long way from integrating new forms of work organization with contract negotiation and administration. Early reports suggest that such an integration is being developed in the GM/UAW Saturn project (*Toronto Star*, August 3, 1985). However, this dramatic departure from the accepted practice has been in place for several years in at least three Canadian worksites.

In these organizations, integrating QWL and the contract means viewing quality of working life as a set of guidelines for designing and running organizations — rather than as a management style, union-management cooperation or a problem-solving program. These guidelines, some of which are listed in Table 1, have been distilled from over 30 years of experience by management and union in developing new forms of work organization around the world. Integration means that these guidelines underlie the design of *all* parts of the organization — roles, information systems, etc., and the contract and its negotiation and administration. This is particularly important as,



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Many items currently covered in most collective agreements are better suited to the ongoing, open problem-solving negotiations of QWL.



unlike the other parts, the contract lays out rules that govern other aspects of the organization.

In the Canadian cases integration has meant the development of two separate but linked collective agreements. The first deals with basic rights and the distribution of income and benefits (e.g. union security, pay, vacation allotment) while the second deals with administrative items (e.g. rules for administering the progression system and scheduling vacations).

The first contract, a set of fixed rules, is negotiated and administered in the traditional manner. The second is a contract of flexible rules and general principles, developed and administered on a section-by-section basis as the needs arise, daily if necessary. Much of the responsibility for its day-to-day handling rests with rank and file workers. For example, within a general framework the scheduling of vacations is decentralized to work groups. However, changes to major items such as the redesign of the progression system involve the work groups, managers, elected union officials and a vote by the membership. Both contracts are controlled jointly by union and management.

The QWL design guidelines on which this particular approach to integrating QWL and collective bargaining is based are first, that only essential items be spelled out in detail and second, problems should be resolved at their source (No. 2 and No. 4 in Table 1). The first contract reflects the former while the second, as it opens up the areas for the direct participation of all members in the day-to-day operation of the workplace,

reflects the latter. In addition to incorporating the two design guidelines mentioned, this approach enhances the development of most of the other guidelines. For example, the flexibility required to continually redesign the fit between the technical and social systems of an organization rests in the latter.¹

In most organizations this flexibility is limited because key aspects of the social system (e.g. job classifications) are "frozen" in the collective agreement. The new approach to linking QWL and the contract permits and encourages flexibility. The ideal of designing the best fit between the technical and social systems is, therefore, more fully realized.

IT IS NOT A QUESTION OF WHETHER THE TWO "SEPARATE" PROCESSES OF QWL AND CONTRACT NEGOTIATION AND ADMINISTRATION WILL COLLIDE, IT IS A QUESTION OF WHEN.

At first glance, the idea of a flexible collective agreement seems a sharp break with the past. However, even in the most traditional workplaces union and management have developed a flexible process for dealing with the inevitable problems associated with administering a rigid contract. For example, supervisors and stewards continually make mutually beneficial deals on items like work assignments and rush orders. This process is usually unofficial, "invisible" (even to some directly involved) and often illegal. In a mature QWL setting this process is transformed. It becomes official, visible and legal, thus realizing its full potential.

Parallel systems

The Canadian cases have changed one other QWL ground rule — the parallel system approach to developing innovative forms of work organization. This approach usually involves setting up a two-tiered system of joint committees — a plant or office wide steering committee, and numerous area or department committees. The latter usually meet once every two weeks and, typically, deal with problems related to immediate working conditions, productivity, quality, and health and safety. Like another popular type of workplace innovation, quality circles, these co-exist with the organization's basic structure.

There are three inherent limitations of parallel systems. The first is that committee mandates are often such that the organization's basic structure is not altered to reflect the QWL design guidelines. However, a full expression of QWL is not possible unless this basic structure is changed — usually in the form of autonomous work groups or self-regulating teams — as was done in the Canadian cases.

The second limitation is that, despite their short-term and frequently dramatic success, parallel systems often do not survive beyond two or three years. Like heart transplants, they are frequently rejected as "foreign objects" by their "host" organizations.

The third limitation of parallel systems is that they sometimes unintentionally

divide the union hierarchy into two separate camps. In some unions responsibility for QWL is assigned to representatives other than shop stewards and committeepersons. However, because of the inevitable spillover between the two roles, the groups find themselves, at times, in conflict with each other. Even when both sets of responsibilities are assigned to the same role, the lack of an encompassing union vision of and strategy for

¹Interestingly, many new computer-based technologies are making the technical system highly flexible.

collective bargaining leads to trading one off against the other rather than an integration of both.

In addition to their inherent limitations, parallel systems are incapable of developing people with the perspective and skills, and an organization culture with the norms, necessary for the effective handling of the approach to contract negotiation and administration described above.

A broad, holistic perspective is important since the ongoing administration of the second collective agreement described earlier involves careful handling of part-whole relations. For example, changes in the progression system must be fair to all teams, and judgments must be made on the boundaries separating team issues from plant-wide issues. Autonomous groups, by their very nature, enable workers to develop the necessary perspective on part-whole relations.

Members are responsible for a whole (in socio-technical terms) piece of work. They often have skills in functions other than production (e.g. quality control). Information on the performance of the entire plant or office is widely shared.

• • • **MANAGING CONFLICT...PROBLEM SOLVING, DECISION MAKING, PLANNING AND COMMUNICATION...ARE THE SKILLS DEVELOPED BY AUTONOMOUS WORK GROUPS.**

In addition to a broad perspective, the ongoing development of the second collective agreement demands high levels of technical and social skills. The ongoing design of a progression or an overtime system, for example, needs detailed knowledge of the day-to-day operation of the plant. Skills in managing conflict between individuals and groups, problem solving, decision making, planning and communication are also required. These are the skills developed by autonomous work groups. It is not just that workers receive training in these areas, they use and develop these skills in their day-to-day work.

Finally, concerning norms, this innovative approach to contract negotiation and administration demands a culture where taking initiative is commonplace, competence is valued and the confidence exists to make and remake decisions sometimes under considerable uncertainty. This is the culture of an organization built upon robust work groups, not on committees who meet an hour or so a week.

The challenge ahead

In addition to the few "official" efforts, there have been many "unofficial" experiments with different forms of integrating QWL and collective bargaining. Usually, these have focused on innovative ways of linking QWL and the contract. Unfortunately, these experiments are isolated and hidden from public view. Like the first generation of QWL projects in the late '60s and early '70s, they are being undertaken by innovative local managers

and union officials, often without the support or even the knowledge of their superiors. These experiments need to be publicized, supported and connected so that their participants and the QWL field at large learn from their experience.

The integration of QWL and collective bargaining is necessary if the QWL field is to move forward. This integration will involve changing some basic QWL practices. Significant changes in management and union policies and practices (such as narrow, detailed job classifications), and perhaps legislation, will also be required. Change, however, is what QWL is all about.

SIGNIFICANT CHANGES IN MANAGEMENT AND UNION POLICIES AND PRACTICES... WILL ALSO BE REQUIRED.

Table 1

Some QWL Design Guidelines

1. The design or redesign of the jobs and the overall organization should be done with as much participation by everyone who will be affected as is possible.
2. The design of an organization should specify no more than is absolutely essential. Detailed specification inhibits effective day-to-day operations let alone adaptation to change.
3. An organization's technical and social systems should be designed (and continually redesigned) to establish the best fit between the two. While the effective functioning of both is vital to organizational performance their overall fit is what is critical.
4. Problems should be resolved at their source. The people who experience problems first-hand should be given the information, skills and authority to make decisions and to take action to resolve the problems.
5. Information should go as directly as possible to the people who need the information in order to act. Information should not be used to "check up" on people.
6. People whose responsibilities are tied together – either because they must exchange information and/or because the actions they take affect one another – should be able to directly coordinate their activities themselves. This often involves setting up what are called "semi-autonomous" or "self-managing" work groups. These are groups of people who share responsibility for a whole piece of work and who themselves decide how to plan and organize that work. The group may also decide how much sharing of tasks (i.e. multi-skilling) is appropriate and desirable.
7. The role of the supervisor changes from controlling the internal workings of the group to managing the relationship between the group and the rest of the organization. As the group takes on more autonomy, the supervisor becomes more of a resource, a trainer, an advisor, a coordinator, and a long-range planner.
7. All parts of the organization should be consistent with the same basic principles. The operation of the maintenance, engineering, personnel, etc., departments and the policies and behaviours of senior union and management people should support quality of working life activities throughout the whole organization at all levels.

Playing hide and seek with QWL

by Hans van Beinum

Executive Director, Ontario Quality of Working Life Centre

Preface

Discussions about quality of working life (QWL) are often characterized by confusion, misunderstanding and lack of proper definition. The fact that there is a common term, QWL, which is being widely used, does not mean that there is a uniform and shared understanding.

Hidden behind the words "quality of working life" lies a multitude of interpretations and points of view. In fact, the term QWL disguises a rather Babylonian situation and, as a result, is setting the scene for a political dilemma of some significance. In this discussion, we will try to identify some of the main reasons for this state of affairs.

1. The definition

Probably the most common, confusing and somewhat misleading use of the term QWL, is as a general concept, referring to a wide range of conditions, approaches and methods dealing with the physical, social, economic and psychological factors affecting the well-being of workers. From a linguistic point of view, it is quite appropriate to call this entire domain QWL. However, this semantically correct use of the term QWL is also very deceptive.

In retrospect, when the term QWL was coined in the early '70s, it was probably a mistake for the various international networks that had been working for many years in the field of the democratization of work, to use this label when forming themselves in 1972 into the International Council for QWL. By using that term, we obscured the democratic thrust that was the real meaning of the new forms of work organization, thus creating confusion and hindering its development. QWL refers to an explicit set of values, concepts, and methods for the design of jobs and organizations in terms of direct industrial democracy — that is, work systems in which people are

directly involved in the decision-making process affecting their job and work environment.

The conceptual basis of QWL rests on the notion that organizations have the characteristics of open socio-technical systems. The technical system comprises the equipment, the material, the plant and process lay out, with its particular characteristics and requirements. The social system is made up of people in the work organization with their particular physical, psychological and cultural characteristics and requirements that they bring to it and their organization, both formal and informal. The social and technical systems are interdependent and complementary. Designing a work organization which is effective and adaptive means meeting the requirements of both technology and people, i.e. co-designing the technical and social systems in such a way that they accommodate and support each other in the best "fit" possible. It recognizes that people have multiple capabilities and fundamental social and psychological needs pertaining to work.

this field of study and practice which had been developed since the 1950s. It relates the need for adaptation and effectiveness of organizations to the adaptive and multiple capabilities of people. QWL is a new organizational paradigm, which integrates the democratization of work and the economic performance of the organization.

Notwithstanding the origin of the term, the current use of QWL includes many different meanings. Today QWL stands for a wide variety of approaches, which include such practices as quality circles, job enrichment, profit sharing, union-management collaboration, and various forms of the parallel structures. Most of these are entirely unrelated to the conception of organizational design and the democratization of work. Furthermore, most of the time the term QWL is not, or is rather poorly, explained. Consequently, we cannot understand what is meant by QWL unless we know the precise way in which this term is being applied.

2. Confusion and misunderstandings

A rather simple but common confusion in the discussion about QWL is caused by the term being used to mean both cause and effect.

On the one hand, it is used as an expression of a state of affairs, as the outcome of certain conditions, as the evaluation of people's experience at work.

On the other hand, QWL is used to indicate a causal factor, such as a

QWL IS A NEW ORGANIZATIONAL PARADIGM, WHICH INTEGRATES THE DEMOCRATIZATION OF WORK AND THE ECONOMIC PERFORMANCE OF THE ORGANIZATION.

The development of an organization based on QWL design principles leads to a basic change in the fundamental building block of the organization. There is a shift from the traditional, fragmented and dissociating one person-one task structure to the development of semi-autonomous and self-regulating work groups. These groups consist of a number of people who collectively have the responsibility and the skill to manage a set of interdependent tasks which together form a natural whole.

QWL was the phrase selected to denote

specific action, a certain approach required in order to change the features of the work situation. It refers to the introduction and promotion of specific conditions, which are considered desirable and which are expected to have certain effects.

To use the term QWL in these two different ways is not necessarily wrong, as long as we make it clear which meaning is intended.

A more fundamental misunderstanding of QWL is through a general lack of

appreciation of its contextual significance. This is particularly true when QWL is used in its original meaning of a new organizational paradigm, i.e. the democratization of the workplace through the processes of participative design or redesign.

It is not always realized that QWL is a rather radical perspective, with significant societal implications, and which usually requires fundamental changes in both the structure and the processes of an entire organization. Because QWL is an organizational design strategy, it affects the total organization and cannot be pursued in isolation from organizational objectives, values and policies. By not recognizing and understanding the fundamental and encompassing meaning of QWL, we entertain rather naive expectations about its development and diffusion.

On a more basic and deeper psychological level, there are unconscious fears and irrational resistances. These have to do with the fact that open and direct participation and involvement give rise to all kinds of anxieties.

Similar to the fear of freedom, as discussed by Erich Fromm in his famous publication of 1942, there is a fear of democracy. The unpredictable and unfolding character of direct industrial democracy is a threatening phenomenon. It does not provide the "safe" traditional bureaucratic structures and procedures, with their suggestion that they will protect us from uncertain futures.

Direct involvement and engagement will unlock the human potential, the multiple capabilities of people. But it can also unleash the darker side of the human condition and, therefore, will make new and greater demands on our ability to recognize and deal with the whole person.

3. QWL and union-management relations

A distinct area of confusion is encountered when QWL is considered in the context of the political reality of union-management relations. The combination of the values and notions of QWL, and the traditions and practices of industrial relations, opens up a whole new field of issues. It releases a new range of opportunities for appreciating as well as for misunderstanding and misusing QWL.

By position, by right and by responsi-

bility, both unions and management are inherently linked to QWL. Human dignity in the workplace is by definition a matter of primary concern to the union. Similarly, the use and development of human resources are an integral part of the management process. Therefore, in unionized organizations, unions and management must be jointly involved in QWL, and must share responsibility for the process. Although QWL will not do away with conflict or with the adversarial system, it will facilitate a more mature and constructive process of conflict resolution. Above all, QWL will allow unions and management to identify and develop areas of mutual interest and concern.

However, the undeniable logic of the joint involvement of union and management in QWL does not necessarily lead to a joint understanding of QWL or to an active joint engagement in this process. The combination of the political characteristics of union-management relations and the meaning of QWL can result in a potent mixture. This can lead to a powerful process of constructive and creative developments, as well as to a situation with rather strong and firmly fixed negative views about QWL and organizational change.

Some of the key features of this relationship between QWL and joint union-management involvement can be illustrated by examining the differences associated with two fundamentally different approaches.

cooperation is regarded both as a critical condition for the development of QWL, and as a consequence of QWL activities. However, it should not be equated with QWL.

If, on the other hand, we take as point of departure the desire to develop cooperation between union and management, and subsequently an area for cooperation is selected, quite a different process is involved.

The cooperation may be about profit sharing, health and safety, quality circles, or training, but mostly it is not concerned with the organization of work. Labour-management committees and similar forms of worker involvement are good illustrations of this development. Here, union-management cooperation and QWL are almost defined as synonymous.

Since organizational design is usually not part of this second approach, there is rarely a direct impact on the organization features of either union or management. Furthermore, because union and management are not jointly involved in learning about a system's change, it is unlikely that this approach will lead to any significant changes in the basic characteristics of the union-management relationships.

In fact, this second approach may well reinforce the existing work system; union and management may find it difficult to change to a QWL orienta-

• • • **THERE IS A FEAR OF DEMOCRACY.
THE UNPREDICTABLE AND UNFOLDING
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PHENOMENON.**

If we take as point of departure QWL as an explicit strategy for designing work systems and organizations, which is then subsequently developed in the context of union-management relations, a distinctive and very fundamental process of change is initiated.

Since QWL is concerned with the design of systems, it will not only change the workplace. It will also have an impact on the organization of both management and the trade union, as well as on the system characteristics governing the relationship between union and management.

In this approach, union-management

tion dealing with structural change.

Occasionally, the point of departure and the content and nature of the cooperation will reinforce each other, leading unions and management away from QWL design strategies. Indeed, union-management cooperation can become a defence against QWL, where neither party is interested in structural change.

Despite the great differences in assumptions and values between the two points of departure, the term QWL is used to describe both approaches. Needless to say, this only adds to the confusion about the meaning and merit of QWL.

4. Types of misuses

Quite another kind of difficulty in QWL discussion is caused by statements that have nothing to do with the subject. In these cases, the term QWL is a misnomer, and often used as some kind of "scapegoat."

The spectrum of misuses includes false applications, where there is an obvious contradiction with the values and principles of QWL. This includes practices and approaches in the workplace intended to reduce the role of unions or even to decertify unions and which go blatantly under the label QWL.

A more complex misuse of the term is when views about QWL are really referring to the various conditions considered necessary to engage fruitfully in the process. These can range from questions on job security, remuneration, or health and safety, to concerns expressed in attitudes that are embedded on a deeper psychological level.

For instance, people think they are commenting on QWL, when in actual fact they are making a judgment about the motivation of the other party, or about how much the other can be trusted in a process of cooperation. Hidden behind these views about motivation and trust, we often find uncertainty and doubt about an ability to control situations or influence the decisions of the other party. Feelings of insecurity and lack of power are often expressed by way of negative statements about QWL.

Another example of misusing the term QWL is seen when management or unions declare themselves "against QWL." In fact, they are expressing unease about new demands that will be made on them. It has to do with feelings of anxiety about personal competence and with the ability of the management or union system to cope with new and somewhat unpredictable demands. In these cases people are again not so much criticizing QWL as they are expressing their own fears and uncertainties about being able to deal with new situations.

A rather devious way of misusing the term QWL is to use it as a tool for conceptual and emotional manipulation. By reinforcing or even creating an ambiguous understanding of QWL, it can be used as a powerful image. Particularly in association with other negative notions and feelings, it is easy

to use QWL in such a way that it will play on the emotions and anxieties of the audience. QWL then becomes an easy target and a fertile ground for negative projection.

The most damaging misuse of QWL takes place when it is used as a means only. This happens, for instance, if the *only* motivation to develop QWL is to increase productivity. When we start to "materialize" human values, and undertake so-called experiments with QWL in order to find out whether "it" works, we begin to deny the value of human dignity. QWL is a process, a direction, and not a thing. When we reduce participatory democracy to a commodity, we undermine the very basis of our democratic society.

example of the careless and untidy use of language. To the contrary, it seems to be something of a deliberate act, although it is probably in most cases an unconscious act.

It is a deliberate act in the sense that the undefined and vague use of this encompassing term will allow us to avoid dealing with the political dimensions of the work situation. In that way we do not have to make public choices about controversial issues: neither will we be confronted with the consequences of our choice. Language can be used to keep us away from reality. It can act as a screen, as a defence mechanism against becoming personally engaged with critical issues in the real world of work.

LANGUAGE CAN BE USED TO KEEP US AWAY FROM REALITY. IT CAN ACT AS A SCREEN. AS A DEFENCE MECHANISM AGAINST BECOMING PERSONALLY ENGAGED WITH CRITICAL ISSUES IN THE REAL WORLD OF WORK.

5. QWL – a socio-political process

The development of QWL in the organization is not a quick fix, it is not the application of a "technique." It is a long and complex process of fundamental organizational change, which includes changes in the structure of work, changes in attitudes and in relationships.

QWL is above all a process of search and learning. Every work system has to translate the values and principles of QWL in terms of the specific circumstances of its own situation. The opportunity for autonomy on the job, for variety in work, for learning, and for working together will differ for each production system and technology. We have to recognize that each organization, in view of its own identity, cannot but write its own distinct "QWL story." However, for such an "individualized" process of QWL development to be on target, it presupposes a clear general understanding of the values, principles and notions of QWL.

QWL refers to something that is very real and very significant for all of us, because it involves the daily reality of the world of work. Because the undefined and ambiguous use of this term is continuing in both popular and professional publications and discussions, we are inclined to conclude that this practice is not just an

Language is not only a mirror that reflects our beliefs, fears and confusions, it is also our most powerful tool.

Probably the most unique feature of QWL is that it does not only allow, but in fact encourages and indeed requires the organization to relate its culture and distinctive competence to the values of its environment. To that extent it requires the use of language that is in accordance with the human values of our society. The development of QWL demands a practical and direct language that will encompass both societal and organizational values. More specifically it must be able to connect the democratization of work with democracy in a societal sense. In this way it will clarify and legitimize the meaning and practice of direct personal participation.

Language will then be used not only in a reactive manner to maintain a certain level of consciousness and in many cases to mask anxiety about direct democracy. To the contrary, it will then be used pro-actively as a tool to widen our consciousness and assist us to engage with ourselves as well as with our organizational reality.

This will not be an easy task, as it means that we have to discontinue playing our game of conceptual and linguistic hide and seek with the meaning of QWL.

New directions in occupational health and safety, worker participation and job design

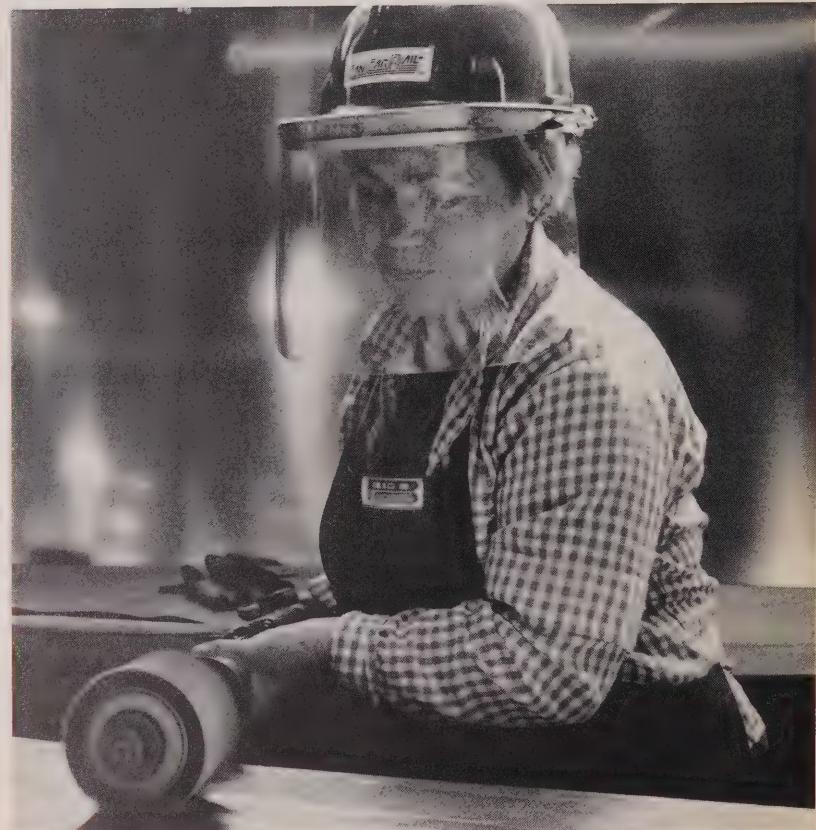
by Jacquie Mansell

The last decade and a half has been an era of growing concern for health and safety in the workplace. Since the late '60s, the labour movement in most countries has made occupational health and safety a top priority. Most industrial nations revised their health and safety legislation in the '70s. Tremendous union, management and societal resources have been allocated to making the workplace a safe and healthful environment.

Over the same period, there has been growing interest in the redesign of the workplace to increase union and employee participation and to eliminate repetitive, unchallenging, over-supervised dead-end jobs. These innovations, normally subsumed under the quality of working life or QWL label, have been promoted by management as a means to greater organizational effectiveness, by unions as a move toward industrial democracy and more human dignity in the workplace, and by governments as central to developing and maintaining more mature labour-management relations.

Rarely has any substantial connection been made in North America between quality of working life issues and workplace health and safety. At best, health and safety (viewed primarily in terms of hazard control and accident prevention) has been seen as a key component in the quality of worklife. At worst, the concerns of quality of working life proponents have been viewed as irrelevant or frivolous by companies, unions, and governments grappling with a myriad of highly visible occupational health and safety problems.

Jacquie Mansell, an independent consultant and researcher, was a senior consultant with the Ontario Quality of Working Life Centre from 1979 to 1985.



Health and safety and QWL issues are closely related.

There is growing evidence, however, that health and safety and quality of working life issues are closely related to each other. The reason goes beyond the undeniable fact that traditional health and safety issues should be dealt with in conjunction with issues of employee participation and job design. There are now powerful arguments being put forth that many occupational health and safety issues cannot be effectively addressed unless the content of jobs and the nature and extent of employee participation are also addressed.

Job design and health and safety

The first link between health and safety and QWL lies in the direct connection between certain objective characteristics of jobs and physiological and psychological stress and ill health. Several extensive examinations of international research have concluded there is consistent evidence that psychosomatic disorders, poor mental health, cardiovascular diseases and other negative health characteristics are linked to the very job character-

istics that are the central focus of those concerned with quality of working life (Gardell, 1977 and Cooper, 1983).

Gardell argues convincingly that 30 years of behavioural science and psychosomatic research have shown the following job characteristics to be "harmful to the individual as a biological and social being:

- mechanically controlled work pace;
- standardized motion patterns;
- working methods and tools predetermined down to the last nut and bolt;
- constant repetition of short-cycle operations;
- exacting requirements to pay superficial attention, especially when combined with systems-controlled work pace;
- drawing either exclusively or for the most part only on the individual's motoric functions;
- combination of the foregoing work characteristics with payment by results;
- lack of opportunities for social interaction on the job;
- authoritarian patterns of supervision;
- shift work or other forms of evening or night work."

Not only can poorly designed jobs make people sick, there is also evidence that jobs designed according to the principles of quality of working life help to keep people healthy. In an extensive evaluation of a work democracy redesign project in one of the most profitable companies in Swedish industry, researchers from the University of Stockholm found that workers in autonomous work groups experienced significantly less psychological stress than their co-workers in departments without autonomous groups. The lower stress levels existed despite the fact that workers in the autonomous groups carried far more responsibility in their jobs.

• • • MANY OCCUPATIONAL HEALTH AND SAFETY ISSUES CANNOT BE EFFECTIVELY ADDRESSED UNLESS THE CONTENT OF JOBS AND THE NATURE AND EXTENT OF EMPLOYEE PARTICIPATION ARE ALSO ADDRESSED.

The study showed that the negative consequences of stress inevitable in all work (e.g. responsibility for production, time pressures, interpersonal tensions, etc.) were decreased by the basic characteristic of autonomous work groups. Greater influence over and better understanding of the work process as a whole, increased chances for self-determination with respect to one's own work, more challenge and less monotony, and less supervision and greater freedom of movement all helped to reduce stress for individuals within the group. In addition, the internal assignment of work and personnel by the group and the cooperation required to perform many of the group tasks helped to build greater solidarity and group support.

Similarly, other researchers have demonstrated that strong social support from one's work group can relieve job strain and help reduce the effects of job stress on coronary heart disease, cortisone, blood pressure, glucose,

and cigarette smoking. (Caplan et al. in U.S. HEW Publication No. (NIOSH) 75-160, 1975 and Cooper and Marshall in *Understanding Executive Stress*, 1977.)

On the basis of the above research findings, employers, unionists and legislators in both Norway and Sweden have broadened their views on health and safety. The recent, revised work environment legislation in both countries includes significant sections on work structuring and job design (see boxes).

The Norwegian legislation is particularly clear in stating the principles that should govern the organization of work. It also stresses the need for continual improvements in the overall work environment and provides a legal basis for employees to raise demands for improvements in all conditions (including physical conditions) beyond minimum standards.



Mine safety performances are best when jobs are designed according to QWL principles.



OECD Observer

High-tech industries usher in a new set of health and safety concerns.

The Norwegian Act clearly puts the central focus for health and safety on the individual organization and the experience of people in their own workplace. One of the major roles of centralized groups, such as government inspectors and employer and trade union organizations, is to support local level activities. Section 14 of the Act, pertaining to the duties of the employer, provides guidelines for the development of a local action program to include the election of safety delegates, the establishment of joint committees with parity representation and some degree of decision-making rights anchored directly in law, significant amounts of training, and a joint process to identify and deal with a wide range of workplace issues — including the organization of work. If employees feel they are being denied their rights under the Act, they can take their case to a Labour Court.

Until the health and safety significance of job and organization design is more widely recognized in North America, we will be missing a key variable already affecting the well-being of workers. In addition, the connection between the nature of jobs and stress and health will become increasingly important as more new technologies are introduced into a wide variety of work settings. Many

of the new technologies have the potential to either increase or decrease the skill requirements of jobs as well as the degree of autonomy, decision-making authority and social interaction experienced by the worker.

Participation and health and safety

A second key link between health and safety and QWL lies in the area of union and worker participation. In a recent review of health and safety legislation in Canada, Bryan Walker notes that "the right to participate and be consulted in the decision-making process on occupational health and safety issues is becoming well-established in most jurisdictions." The standard vehicles for participation across Canada are joint health and safety committees and/or representatives. There is evidence, however, that many joint committees may not be working very effectively. This was the conclusion, for example, of the 1981 Burkett Commission into Safety in Mines and Mining Plants in Ontario. And in response to labour's concerns

about these committees, the Ontario government has recently commissioned a study to report on the effectiveness of health and safety committees.

Given the growing importance of worker participation in the health and safety field, it may be valuable to examine some learnings from the more than two decades of experience with worker participation in the quality of working life field. A crucial learning from QWL is the importance of the *whole* organization being committed to participation as a way of life. Twenty-five years of experience with numerous forms of worker participation have clearly demonstrated that "islands" of participation rarely function effectively and almost never survive. This situation is exacerbated when the very substance of the "island" is inextricably tied to the whole organization, as is health and safety. Therefore, based on what has been learned in the QWL field, it would be expected that participative health and safety mechanisms ultimately can only work well within

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an organization committed to participation.

This fact about participation was clearly recognized in the report of the Burkett Commission and its predecessor, the 1976 Ham Report of the Royal Commission on the Health and Safety of Workers in Mines. Both reports stressed the importance of chief executive commitment to health and safety and the need for management to initiate and engage in open consultation on a full range of health and safety issues — many of which fall under the "prerogative of management

structures characteristic of most quality of working life projects are designed to ensure widespread commitment, open information exchange and participation. However, they are also designed to achieve a mix of representative and *direct* participation, where one important role of the representative structure is to provide support (re commitment, policy, resources, etc.) to the direct participation occurring daily on the shop or office floor. Early research in the area of worker participation concluded that although representative democracy is the most effective way to deal with many crucial

**• • • ONLY THROUGH WORKER
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AND SAFETY.**

authority." However, within the quality of working life field, it has been found that the best way to ensure senior management commitment to change and to facilitate open consultation is to make sure that key senior managers are themselves directly involved in the QWL process. The Norwegian Work Environment Act demands the participation of top management in local work environment committees.

The findings of the Burkett and Ham Commissions are also consistent with a further learning about effective participation. These Commissions argued that consultation can only be meaningful when workers are given the information, training, time and other resources required to engage effectively in discussions, not only of workplace "anomalies," but also of overall organizational policies and programs. Both the Norwegian and Swedish Acts include strong provisions for extensive information sharing and training. In Canada, the importance of information and training is also acknowledged in the growing trend toward "right-to-know" legislation in respect to training of workers and to informing them of the risks involved in their jobs. For example, the Ontario Occupational Health and Safety Act empowers health and safety committees to obtain information on material, process or equipment hazards.

Direct participation

One of the earliest and most important findings in the QWL field concerns the importance of direct forms of participation. The multi-tiered joint

concerns of workers (e.g. pay, conditions of work), on its own it has done little to significantly alter much of the day-to-day work experience of many people. Hence, direct participation has become a cornerstone of the QWL approach to job and organization design.

The central importance of what happens directly on the shop or office floor is recognized in Ontario's health and safety legislation with its emphasis on the direct internal responsibility system comprised of the line organization up from the worker and supervisor to the manager and executive. Worker participation is also a key component of the Ontario law. However, it is not clear how the direct responsibility system is to be supported by worker participation, which is primarily indirect or representative in form. There

tation by Bjorn Gustavsen at the QWL and the '80s Conference, Fall 1981.) For example, the Norwegian legislation provides for the widespread participation of office or shop-floor workers in joint problem-solving activities aimed at improving their work environment.

Many workplace innovations in Canada based on widespread direct worker participation have resulted in significant improvements in health and safety. For example, at the Ford Casting Plant in Windsor, Ontario, a shop-floor QWL committee redesigned a work procedure to eliminate a major safety hazard in their area. In the City of Calgary's Engineering Department, a division that initiated a joint union-management participative productivity program was not only able to save approximately \$1.4 million in the program's first year, it also improved its safety record to the point of winning the departmental safety award.

And in an industry known for its dangerous working conditions, Whonnock Industries and the International Woodworkers of America established joint problem-solving committees in six of their logging camps in British Columbia. The committees, which were given real authorities to make important decisions, worked hard to get widespread participation from everyone in the camps. In the first two years of the program, the number of days of lost time due to injury was reduced by over one-third and the related costs were reduced by over one-half. By mid-1985, only four accidents had occurred across all six camps.

In a related, but somewhat different way, the importance of direct worker

**• • • DIRECT PARTICIPATION [IS] A
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AND ORGANIZATION DESIGN.**

is a basic tension between the assignment of responsibility and the provision of opportunities for participation.

The necessity of linking responsibility and participation has been clearly recognized in Scandinavia. Both the Norwegian and Swedish work environment legislation is "rooted in the firm belief that only through worker engagement and activity will it be possible to make major steps ahead in improving workplace health and safety." (Present-

participation to health and safety was also acknowledged in the Burkett Commission's recommendation "that individual work crews be more involved in the planning of their work and...be made more responsible for achieving short-term production targets." This recommendation was based on the finding that the most outstanding safety performances consistently occurred in situations where management shared all information openly with the workers, the workers them-

selves made many of the decisions related to their daily work, and the supervisor acted more as a facilitator, resource person, planner and safety specialist. In essence, the safety performances were best when job responsibilities and work roles were designed according to the principles of QWL.

Job design and collective action

There are two main reasons for the above finding, which has been observed many times in the QWL field. First, the structuring of jobs, so that workers are actively involved in all aspects of the planning and execution of their work, means that those who directly experience a problem are also likely to be in a position where they are able to deal more effectively with the problem, from its causes to its implications. However, there is a second way in which job and organization design are significant. Scandinavian research has shown that not only do workers with richer job content and greater say deal with the health and safety issues directly connected to their own jobs, they also deal more often and more effectively with broader, more complex work environment problems.

and Swedish health and safety legislation has provisions concerning the design of jobs. An interesting illustration of this dynamic comes from the Whonnock Industries/IWA joint problem-solving program mentioned earlier. Most workers in logging camps have jobs where they exercise considerable autonomy and discretion. When given a real opportunity to participate in improving the health and safety of their workplace, the workers not only dealt with direct job issues, they also dealt with the complex issue of how the quality of their community life and of the work-family interface affect health and safety in the logging camps.

New technologies

The link between health and safety and quality of work life is clear and powerful. The evidence already exists pushing the two fields together from many directions. The final push to break down the wall between them may finally come in North America from the widespread implementation of new technologies.

For a variety of reasons, including job security and health and safety at the top of the list, workers and their unions

The time has come to integrate the concerns labelled health and safety and those labelled quality of working life. For only if we begin to take a more holistic approach to work, will we be able to deal effectively with the increasingly complex and ever-changing problems facing the workplace today.

Norwegian Worker Protection and Work Environment Act of 1977

Section 12

Planning the work.

1. General requirements.

Technology, organization of the work, working hours and wage systems shall be set up so that the employees are not exposed to undesirable physical or mental strain and so that their possibilities of displaying caution and observing safety measures are not impaired.

Conditions shall be arranged so that employees are afforded reasonable opportunity for professional and personal development through their work.

2. Arrangements of work.

The individual employee's opportunity for self-determination and professional responsibility shall be taken into consideration when planning and arranging the work.

Efforts shall be made to avoid undiversified, repetitive work and work that is governed by machine or conveyor belt in such a manner that the employees themselves are prevented from varying the speed of the work. Otherwise efforts shall be made to arrange the work so as to provide possibilities for variation and for contact with others, for connection between individual job assignments, and for employees to keep themselves informed about production requirements and results.

3. Control and planning systems.

The employees and their elected union representatives shall be kept informed about the systems employed for planning and effecting the work, and about planned changes in such systems. They shall be given the training necessary to enable them to learn these systems, and they shall take part in planning them.

The same job characteristics that have been shown to lead to physiological and psychological stress and ill health, have also been shown to create fatigue and/or passivity. This makes it more difficult for workers to participate actively in changing the working conditions — including physical and chemical risks — that may harm their health. On the other hand, jobs that are based on autonomy, the exercise of discretion and supportive social interaction help to build the self-confidence, self-esteem and personal and interpersonal skills required to deal with complex health and safety concerns requiring collective action (Gardell, 1980, 1982 and Gustavsen, 1977).

Hence, good job design appears to be a critical factor in determining how effectively workers can use available opportunities to participate in improving their work environment. It is for this reason also that the Norwegian

are actively demanding greater participation in the area of technological change. New technologies have obvious significance for both health and safety and job and organization design. As unions and workers begin to participate directly in this vital area, they will become more aware of the choices presented by the technologies and they will begin to carefully examine the full consequences of these choices.

Under closer observation, connections between job design and health and safety should become more visible. At least one union in North America, the Communication Workers of America (CWA), has already begun to discuss the link between new technologies, job design and occupational health and safety. The CWA policy on new technology and job pressures calls for the design of jobs that are varied, interesting and meaningful, and for the formation of work teams.

Swedish Work Environment Act (1977)

Chapter 2, Section 1

The work environment shall be kept in a satisfactory state having regard to the nature of the work involved and the social and technological progress occurring in the community at large. Working conditions must be adapted to human physical and mental aptitudes. The aim must be for work to be arranged in such a way that the employee himself can influence his work situation. (Swedish Ministry of Labour, 1977 Ch. 2, Sec. 1.)

QWL in the Atlantic provinces

by Alan Lane

An experiment in the Atlantic provinces to develop QWL facilitators has given birth to several innovative changes in work methods among government, industry and educational groups.

The Work Improvement Training Program was begun in 1984 by Dalhousie University's Institute of Public Affairs. Funded by Labour Canada, the project aims at increasing the number of people familiar with QWL concepts and their application.

Eight organizations from Nova Scotia, New Brunswick and Prince Edward Island have been taking part in the program. The 25 participants representing industry, government and education had to comply with basic criteria for acceptance:

- strong support from their senior management;
- management representation by line managers able to effect change without prior approval within their own work groups;
- attendance by a union representative within these work groups;
- substitution of a worker representative where an organization did not have a bargaining unit.

An intensive one-week course in the principle of socio-technical systems began the program. Subsequently, participants attended a two-day workshop each month and in between were expected to develop and implement a QWL change project in their work area. During the workshops, much time was spent by participants learning about the progress and difficulties of their individual QWL projects.



QWL program developed at a food distribution warehouse.

During the two-year period of the program several working examples of applied QWL have been developed. A municipality is revising its snow and ice clearing program in equal partnership with the union. In another case, members of a work group in a food distribution warehouse planned and carried out the move for an addition to the plant. Workers at a textile mill are designing new floor layouts for each of the units in the mill.

The initial concept for the program was developed to deal with geography and population problems in the Atlantic provinces. The land mass is larger than Britain yet its two million people are scattered in small pockets. Unfortunately, the resource base of QWL expertise in the area is small, which ruled out direct consulting at individual work sites. The solution was to bring representatives to one location on a regular basis and use education/classroom techniques. Core teaching and the consulting work has been done by five regular tutors, with other specialists flown in from other parts of Canada.

The Work Improvement Training Program has proved extremely cost effective for a large, thinly populated area, according to Jack Dougall, assistant director of the Institute of Public Affairs and director of the Advanced Management Centre at Dalhousie University.

The lessons learned in applying QWL, he says, have been outstanding.

"An interesting dimension of the program is that it was set up as an action research project, with the intent of evaluating productivity, job satisfaction and attitudes both before and after the program. It is intended to write up the outcomes of these findings in the form of case studies, both of the program as a whole and the individual projects."



Jack Dougall...lessons learned outstanding

Manitoba Workplace Innovation Centre

by Esther Meisels

The Manitoba government has introduced legislation to establish a Workplace Innovation Centre to help employers and employees deal with the impact of technological change. Employment Services and Economic Security Minister Len Evans will be the minister responsible for the centre, proposed as an arm's length agency of the province.

Although a 14-member board, chaired alternately by business and labour, will determine priorities and direction for the centre, the provincial government sees the centre carrying out such functions as:

- helping employers and labour groups establish guidelines for dealing with the implications of technological change — including training, retraining and the deployment of displaced workers;
- working with employers to encourage worker participation and involvement in implementing new technologies, enhanced quality of working life, increased employee commitment and improved productivity;
- consulting (either directly or through



Women are among the hardest hit by technological change.

identifying appropriate resources) with employers and workers concerning the development of specific technological change projects;

- developing an information base readily available to employers and employees and encouraging networking to enable them to share experiences with technological change and workplace innovation.

In his statement at the bill's second reading, Evans said technological development "will impact on the skills we require and the methods by which work is organized." The Workplace Innovation Centre is, he added, an attempt by the Manitoba government to "facilitate the process of change in a way that promotes an equitable distribution of the risks and rewards that come with technological development" in the province. The minister

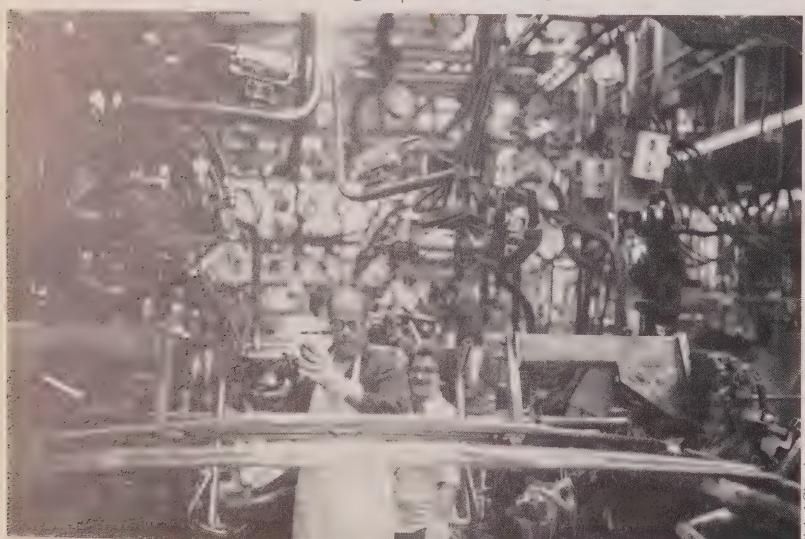
said the centre would "give full attention to those most responsible for and affected by technological change — those sectors of our economy which are changing most rapidly and those people who may be disproportionately affected, such as women and older workers."

The centre evolved from joint government, labour, business, education and community consultation initiated by Industry, Trade and Technology Minister Eugene Kostyra and then Minister of Labour, the late Mary Beth Dolin. It will be funded for its first three years by a \$1.2-million grant from the Manitoba Jobs Fund. Of that amount, \$500,000 will come from the portion of the fund contributed by the Manitoba Government Employees' Association.

The Workplace Innovation Centre reflects an important area of the Manitoba government's technology strategy — the human aspects of technological change and consideration for:

- workers' security;
- the preservation of jobs and the creation of new opportunities;
- fair working conditions, appropriate education, training and retraining;
- the human dignity of being part of the process of technological change.

In conclusion the minister stated: "The centre is seen as an opportunity to assist all Manitobans in capturing the benefits of technological change and thereby taking a lead role in integrating the social and technical aspects of technology."



Older workers face major challenges in coping with the onslaught of advancing technology.

Economic Council looks at technological change

by Tom Rankin

In 1984, the Economic Council of Canada initiated a major research program on the labour market impacts of technological change. Scheduled for publication in mid-1987, the research will examine such critical questions as:

- Does the statistical record bear out the contention of job loss in sectors that have rapidly adopted new technologies?
- What are the technologies that are most likely to have major labour market effects in the future?
- What effects will the introduction of new technologies have on the structure of the economy's skill needs? What are the implications for education and training?
- If the occupational structure changes,

what does this mean for the structure of earnings? How are employment and income to be equitably distributed?

- How are the policies and practices of employers and unions adapting to technological progress? What are its implications for the organization of work, systems of remuneration, and industrial relations?

Of particular interest to *QWL FOCUS*

readers will be the findings concerning the extent to which technical innovations are accompanied by changes in the organization of work and the design of jobs. Data concerning this issue will be gathered as part of a questionnaire survey of 5,000 establishments and an in-depth analysis of a set of case studies. In addition, a review of the evolution of new forms of work organization in Canada and their future prospects will be carried out.



University of Ottawa

Videotape highlights logging industry.



Ontario Ministry of Industry Trade and Technology

Study will examine extent of job loss due to new technology.

Videotape on worker participation

by Tom Rankin

A new videotape on the experience of four joint union-management efforts in Western Canada's resource sector to develop innovative forms of worker participation has just been released. Titled *The Challenge of Change, A New Deal at Work*, the 30-minute tape was produced by Bert Painter for B.C. Research through a grant from Labour Canada. The four organizations involved are MacMillan Bloedel/IWA, Whonnock Industries/IWA (logging operations), Luscar Ltd./IUOE and Crows Nest Resources/IUOE (coal mines). The focus of the change efforts includes worker participation in operations planning, production problem solving, improving health and safety and designing jobs. For information about renting or purchasing a copy of the tape contact any regional office of Labour Canada or B.C. Research at 604-224-4331.

Conferences highlight QWL

by Esther Meisels and Tom Rankin

Two recent U.S. conferences demonstrate that quality of working life is proving to be a positive response to current economic, technological and social challenges facing American industry. The content and participants at both conferences indicate not only a significant increase in QWL activity, but an increased commitment by labour and management to make QWL a way of life. Not surprisingly, as quality of working life enters a new phase in the U.S., some of the ground rules that guided early work organization efforts are being rewritten to reflect the changing times.



Bernie Lennon welcomes delegates at the Michigan conference.

Productivity through work innovation was the theme of the Second Annual Indiana Governor's Conference on Industrial Relations. Held in

Indianapolis in March 1985, the conference was sponsored by the Indiana Labor and Management Council.

The 400 participants were equally divided between labour and management, and almost all came from organizations active in developing new forms of work organization. Case presentations included Delco Remy/UAW, LTV Steel/USWA and A & P Ltd./UFCW. Among the keynote speakers were Michael Maccoby of Harvard University, John Stepp, associate deputy undersecretary of Labor, Bruce Merrifield of the U.S. Department of Commerce, Nicholas Ignatieff from the Ontario Quality of Working Life Centre and Paul Strassman, vice president, Xerox Ltd.



Nicholas Ignatieff, a keynote speaker at the Indiana Governor's Conference.

Ben Mark Holzberg

Each keynote speaker talked about the fundamental changes occurring in the world economy and what they mean for industrial relations and work organization. Accelerating technological change and intensified competition for both domestic and international markets are reshaping the relationships between producer and client, management and union, union and worker.

This reshaping means a new economic order built on innovation — the constant development of new, high quality products and services, custom-made to meet clients' sometimes unique needs. In turn, this calls for long-term relationships satisfying to both producers and clients.



Robin Campbell, United Mine Workers #1656, Edna Bell, Bell Telephone Company and Alan G. Hodgson, Civil Service, London, England, sum up conference events.

In the area of industrial relations, elaborate, rigid job classification systems (developed in response to scientific management) were said to be "out of synch" with the flexibility required by new technologies and specialized markets. As a result, new flexible systems are being developed. Citing a recent study by an MIT group of researchers, John Stepp described Toyota's assembly plant in Fremont, California, where management and the UAW have reduced the traditional 84 job classifications to four.

In terms of work organization, the message from the conference was clear. Whereas in the past, efficiency meant workers doing simple, prescribed tasks, today, effectiveness depends on workers taking on complex responsibilities and exercising considerable discretion. The conference case studies offered strong evidence of the payoffs resulting from this new relationship between worker and workplace.

The second conference, Joint Labour-Management Efforts/Collective Bargaining, took place in Traverse City, Michigan, in June 1985. Attended by 150 participants, the two-day event was co-sponsored by the Michigan Quality of Work Life Council and the Federal Mediation and Conciliation Service. Bernie Lennon, deputy director of the Michigan Department of Labor, began the conference by outlining the extent of worker participation progress in his state: 94,000 workers in more than 90 sites involved in QWL/EI programs, 1,800 in 30 sites in quality circles, another 10,000 in various types of gains-sharing programs, eight active area labour-management committees

and three QWL centres. In addition, Lennon described the innovative organization design of GM's Pontiac Fiero plant in Michigan — self-regulating work groups, quality control built into operator jobs and a highly participative decision-making process. This plant, according to Lennon, had received the highest quality ratings in the history of General Motors.

Lennon's statistics were reinforced later in the conference through a presentation by Great Lakes Steel and USWA Local 1299. At Great Lakes, management and union have changed a narrow, experimental quality circle project into a broad-based, plant-wide strategy directly involving 1,300 employees. Several circles have evolved into semi-autonomous work groups, with cost savings in one area alone totalling \$3 million a year. Union and management have altered their collective bargaining system to allow for the ongoing nego-

tiation of several items. This dramatic break with tradition allows for a much larger number of people to be directly involved in resolving the selected issues. Furthermore, the approach to resolving these issues — open, joint problem solving rather than close-to-the-vest bargaining — was chosen because of its contribution to developing the worker participation program.

The break with QWL tradition in the Great Lakes Steel case was reinforced by several keynote speakers. Neal Herrick of the Wharton School and Tom Rankin from the Ontario Quality of Working Life Centre both argued that some of the accepted ground rules governing QWL efforts — voluntary participation, no overlap with contract negotiations and administration — are blocking the field from moving forward. Herrick called for including work design committee mandates, memberships and decisions in collective agreements. Rankin described Canadian cases where the contract and its negotiation and administration were designed to reflect the same principles and values underlying the worker participation programs. Terry Mazany, representing Pima County, Arizona's highly successful public sector QWL program, called for redesigning the basic structures of organizations, not just adding on parallel systems like quality circles. Dick Dangin of the UAW said his union was now working with GM on the socio-technical systems approach to developing QWL.

In conclusion, QWL appears to be gaining a firm foothold in the United States. However, continued growth will require the redesign of some accepted QWL practices.



Judith L. Strong, Director, Michigan Quality of Work Life Council, addresses delegates.

EUROPEAN REPORT

Volvo Kalmar: ten years after

by Tom Rankin

When Volvo's Kalmar plant started up in 1974, expectations were high. For the first time since the classical assembly line had been devised by Henry Ford, an automobile plant had been designed without a rigid machine-paced line for final assembly. In addition, the basic building block underlying the plant's organization design was the semi-autonomous work group. The one person-one task approach of scientific management had been explicitly rejected. Not surprisingly, Kalmar generated worldwide attention. In fact, in the late 1970s, one observer joked that the number of foreign visitors to the plant had made a significant contribution to Sweden's balance of payments.

Now, a full 10 years after start up, a more complete assessment of the Kalmar experience has been published.

*Volvo Kalmar Revisited*¹ represents the findings of a joint union-management research team. Their report outlines, for the first time, figures on the plant's progress in terms of production volume, productivity, quality and other measures. In addition, results of an opinion survey are given, showing what the workers themselves think of Kalmar. Finally, the report describes how management and union have adjusted their own separate and joint structures to fit with the plant's innovative socio-technical system. The bottom line, according to the researchers? "The Kalmar plant is a dramatic demonstration of the feasibility of achieving extremely positive production results in an unusually favourable work environment."

Norway and Sweden: new technology agreements

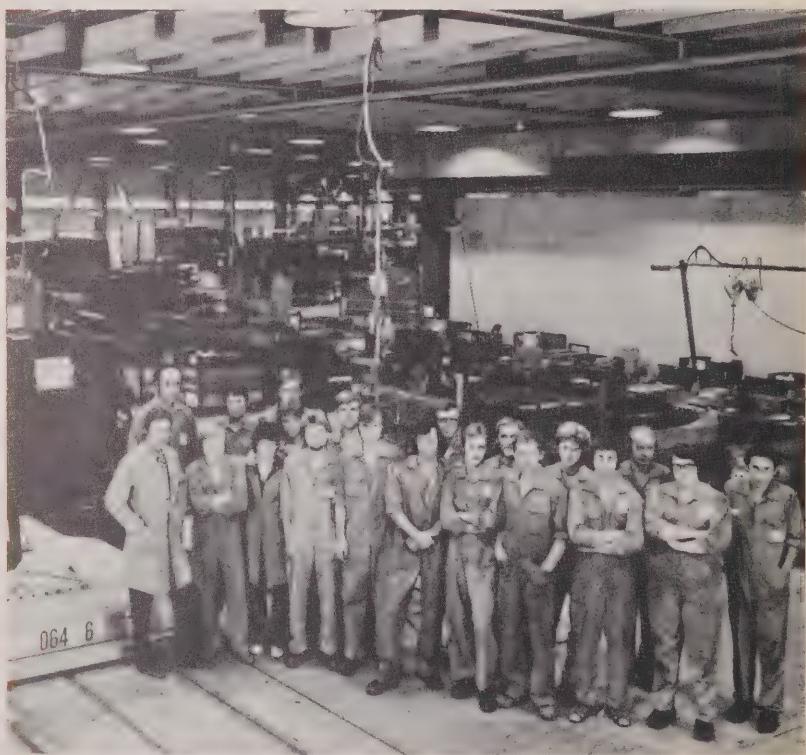
by Tom Rankin

The effective regulation of the development and use of new technology through collective bargaining is a major challenge facing union and management in the Western world. Traditionally, collective agreements have been limited to dealing with procedural issues related to the introduction of new technology; clauses concerning information sharing, prior notification, consultation and protection against changes in worker pay and status are quite common. However, such clauses generally apply to those already employed; they have only a limited impact on the long-term effects of new technology on the

amount and nature of work.

One factor blocking a more comprehensive approach to regulating technology is the mismatch between the nature of the new technology and the nature of traditional collective agreements. The development of the former is often quite complex and rapid while the latter is better suited to issues which are straightforward and relatively stable. In recognition of this, a new type of collective agreement has recently been negotiated by management and labour in Sweden and Norway. The origin and features of these national level agreements on "workplace and enterprise development" are described by Bjorn Gustavsen in his article *Technology and Collective Agreements: Some Recent Scandinavian Developments*, which was published in the August 1985 issue of *Industrial Relations Review*.

According to Gustavsen, the explosion of new technologies and their inherent flexibility has dramatically increased the number of options on how work can be organized. Overall effectiveness



The basic building block of the Volvo Kalmar assembly plant is the semi-autonomous work group.



Addison-Wesley Publishing Company

Scandinavian agreements on new technology "emphasize resources of workers themselves."

is, in part, determined by work organization. Therefore, organizations that will benefit the most from the technological revolution are those that can experiment with a number of organizational forms in order to take the best from each. Furthermore, these organizations would be able to adjust their pattern of organization rapidly, enabling them to continually adapt to new technologies.

The new collective agreements, which have been developed to handle this technological challenge, contain clauses on work organization, technology and economic issues. Both agreements have been heavily influenced by the Norwegian and Swedish experience over the last 15 to 20 years with industrial democracy and quality of working life. For example, the Swedish agreement states that "in the event of technological change, a sound job content shall be the goal together with opportunities for employees to increase their skills and accept responsibility for their work."

Of particular interest, is the way agreements are carried out at the level of the individual plant or office. Both agreements build on the idea of using

the resources of workers themselves. According to Gustavsen, "the point is not to create large establishments of counter-experts to the experts behind present technological developments but to point at, and release, an alternative source of insight and competence." In support of this thrust, funding and other resources are provided to enable the development of local joint union-management pilot projects and the building of networks in support of local developments.

While it is still too early to assess the impact of these new agreements, Gustavsen does summarize their significance for the workplace in Scandinavia. First, they signal the explicit recognition by employers of the need to actively involve employees in the development and introduction of new technology. Second, they indicate the unions' recognition of the need to further worker interest in a way which is consistent with demands for organization flexibility, change and innovation. Finally, the new agreements are one step in the redesign of traditional industrial relations systems to meet the demands of the new economic, technological and social era.

Democratization of work: a decade on

by Alistair Crombie

A second major wave of interest and activity in the democratization of work in Australia began gathering momentum in 1983. To assist in its development, research was carried out to distill the lessons of the previous decade. This research process was highly consultative, involving many meetings, in all states, with unionists, managers, academics, public servants, consultants, and rank and file workers who had been personally involved in democratization projects.

From this process emerged several key points. The first is a new and tighter concept of workplace democracy, which differentiates it more precisely from organization development (OD) approaches. The former is an open-ended process, under bilateral (or multi-lateral) control, by which decision-making power and accountability are redistributed and secured. The latter are typically under the sole control of management. As a result, power distribution is not usually formalized if it is part of the OD approach.

The second point confirms self-managing work groups as the core strategy for democratizing work. However, these groups need to be put more firmly within a negotiating framework, the process under joint union-management control.

In addition, the report resulting from the research draws an important distinction between worker participation in managing the enterprise, and participation in enterprise government — planning and policy making at the board level. Collective bargaining is seen as a more appropriate and effective path to organizational democracy than electing workers to boards of directors.

Finally, the report notes that unions will need to further democratize themselves before they can play their full role in democratizing the workplace.

For copies of the report titled, *Future Directions in the Democratisation of Work in Australia*, by A. Crombie, A. Davis, R. Cole and E. Davis, send \$9.50 Australian to Mail Order Sales, A.G.P.S. GPO Box 84, Canberra, ACT, 2601.

COMING EVENTS

QWL: The State of the Art

May 13, 1986
Toronto

Hosted by the Ontario Quality of Working Life Centre, this one-day conference will address some of the emerging issues in the QWL field. These include the links between QWL and collective bargaining, health and safety, and new technologies. In addition, developments in the public and resource sectors will be discussed.

For further information contact:
Huguette Viala (416) 965-5958

Third National Labor-Management Conference

May 28-30, 1986
Shoreham Hotel, Washington, D.C.

Sponsored by the Federal Mediation and Conciliation Service, this conference will present approximately 30 workshops focusing on a wide variety of issues related to labour-management cooperation. It will feature keynote speakers from labour, management and government, including Secretary of Labor William Brock. Previous conferences attracted more than 1,000 management and labour participants from the United States and around the world.

For further information contact:
Peter Regner (202) 653-5320

Human and Technological Development in Transition

A Working Conference on the Implications of High Technology and Organization Design

Sponsored jointly by The Tavistock Institute (UK), The Institute of Human Relations (Zurich), Berkeley Developmental Resources Inc., Furst Consulting Limited and B.C. Research.

June 8-14, 1986

*The Conference Centre, University of British Columbia
Vancouver, B.C.*

This conference will focus on the difficulty of combining changing technology and its applications with the changing needs of people. In particular, the conference will address the question of designing organizations that can effectively integrate people, technology and ways of life. It will stimulate new and practical thinking about organizational options in technical decisions, organizational structures and roles, and processes of transition and change.

A unique feature of the conference is that Expo '86 will be used as an integral part of the conference environment and activities. As "background," Expo '86 will provide a unique opportunity for highlighting the variety of high technology as well as technological change generally. As "foreground," it will be part of the workplace from which the conference participants will try to derive a greater understanding of the impact of the accelerated technological transformation on society.

The conference will relate socio-technical Expo issues to central questions encountered by participants in their "home" situations and will explore the choices of effective strategies for dealing with them.

From time to time, "business" will be suspended in order to review the way in which the conference and sub-groups are working. Talk-discussions will be introduced at appropriate times to ensure that the "learning from experience," as well as the ideas generated, are given a useful conceptual framework.

For further information, contact:
Mary Natale, Conference Administrator,
3508 Blue Jay Cres., Vancouver, B.C.,
Canada V5S 4E4 (604) 430-4821

Organization Design and Redesign Seminar

Of New and Existing Organizations
Fall 1986
Toronto

Presented by the Faculty of Management Studies of the University of Toronto, this seminar is based on a socio-technical systems approach and will address some of the questions and design issues involved in developing and sustaining high commitment work systems.

Topics covered will include how to secure senior management commitment, the changing role of supervisors and shop stewards, the impact on collective bargaining, evaluation and planning for diffusion. In addition, there will be several case presentations by managers and unions actively involved in organization design and redesign.

For further information on seminar content, contact:
Professor Harvey Kolodny
(416) 978-2826

For further information on registration or accommodation, contact:
OISE Conference Office (416) 926-4711

Socio-technical Analysis and Design Workshop

An Introduction Through Field Study
Fall 1986
Toronto

Presented by the Faculty of Management Studies of the University of Toronto, this workshop will provide instruction in socio-technical systems analysis and socio-technical design and redesign principles. Teams will collect data in selected organizations, conduct social and technical analyses on the data and prepare redesign proposals for their field sites.

Field work will be supplemented by lectures, group discussions and a joint union-management case presentation.

For further information on workshop content, contact:
Professor Harvey Kolodny
(416) 978-2826

For further information on registration or accommodation, contact:
OISE Conference Office (416) 926-4711

BOOK REVIEWS

Worker Participation and American Unions: Threat or Opportunity?

by Thomas A. Kochan, Harry C. Katz,
Nancy R. Mower
Massachusetts Institute of Technology —
1984

by Esther Meisels

The growth of QWL programs in North America has generated a great deal of debate and argument in the labour community on how new forms of work organization affect unions and the workers they represent. In *Worker Participation and American Unions* the authors have taken this debate out of the realm of rhetoric and have placed it within a framework of actual union experience.

Early in 1982 Kochan, Katz and Mower were asked by the Industrial Union Department of the AFL-CIO to study the experiences of unions with worker participation programs. They surveyed and interviewed more than 100 union officers and 900 members; studied five different programs (including successes and failures) in the manufacturing, electrical, auto, print and meatcutting industries; reviewed the experiences of two major national unions in the steel and auto industries and interviewed several national union leaders.

- the participation process means actual changes in work organization, leading to better job security for workers and improved economic performance for employers;
- enough time passes for unions to demonstrate their contribution to improving members' QWL experiences while, at the same time, they continue to deal effectively with bread and butter issues;
- union leaders link their support for QWL to their broader collective bargaining strategies.

tives must become involved in worker participation and must decide whether or not to amend their collective bargaining strategies to support the expansion and innovations of the worker participation processes. In particular, top union leaders need to accept "significant changes in work organization and compensation structures and increased variability within previously standardized local contracts." As for senior management, the authors believe they should "stand behind commitments to business strategies that preserve the employment base of the union."

• • • SENIOR MANAGEMENT...SHOULD STAND BEHIND COMMITMENTS TO BUSINESS STRATEGIES THAT PRESERVE THE EMPLOYMENT BASE OF THE UNION.

The relationship between worker participation and collective bargaining is one of the key issues discussed by the authors. Although some local union officials saw the worker participation process as useful but only a limited addition to collective bargaining, others saw the process expanding and taking over several functions currently performed by collective bargaining.

In this regard the experiences of the steel and auto industries are reviewed. The threat of economic collapse in these industries has prompted both management and labour to search for ways of reorganizing work, improving product quality and productivity and improving job security. As worker participation processes begin to address issues of cost, productivity and em-

The authors conclude then that union involvement in worker participation has had some significant positive results. They predict, however, that to ensure successful worker participation processes, unions will have to link those processes with collective bargaining. This will demand a fundamental change by unions of their current policies and practices.

A COMPLETE SEPARATION OF WORKER PARTICIPATION FROM COLLECTIVE BARGAINING IS NEITHER POSSIBLE NOR DESIRABLE.

Data from the rank and file survey and the review of the five cases suggested that, overall, worker participation processes can have a positive effect on workers' jobs and on their evaluation of union performance. This effect was found to be greater where several conditions exist:

- the union serves as a visible joint partner in the process;

ployment security, it becomes increasingly difficult to draw a clear line between those processes and collective bargaining. In fact, the authors contend that, over time, a complete separation of worker participation from collective bargaining is "neither possible nor desirable."

The authors believe that national union leaders and corporate execu-



Glen Watts, CWA president (Ret.)

"I believe that for QWL to be effective in the long run, it must become not just a worker 'program,' but a part of values and relationships at all levels. That applies not only to management but also to the union..."

Beyond Mechanization

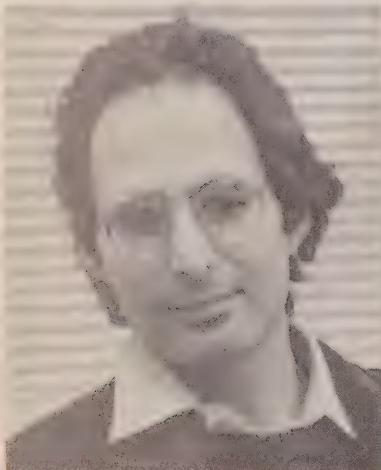
by Larry Hirschhorn
MIT Press, Cambridge, Mass. 1984

by Tom Rankin

"Robots can't run factories. The common notion that computers eliminate the need for human skill and judgment is wrong."

This is the startling conclusion reached by Larry Hirschhorn in his best-selling new book *Beyond Mechanization*. The author traces the transition from rigid mechanical production methods to flexible computer-aided systems and maps out the implications of this transition for organization design. These new systems, he argues, cannot be programmed to handle all contingencies. Furthermore, computers integrate the parts of the production flow into a virtual continuous process. Workers must, therefore, understand the entire production process so that they are ready to respond quickly to unpredictable mishaps. As products and production processes change and specialized markets replace mass markets, workers must also contribute to the ongoing development of production systems.

The new technology does not deskill workers... but our historical models of skill and the skilled worker are insufficient.



Larry Hirschhorn



Technology cannot replace the need for human skill and judgment.

There is no perfect or final production system. Workers must learn as the system evolves. In fact, new technologies, Hirschhorn states, create a work setting in which the worker's capacity to learn to adapt and regulate the evolving system is central to enhancing organizational performance.

Adaptive organizations, based on people's capacity for ongoing learning, are a hallmark of quality of working life. Not surprisingly, Hirschhorn, in identifying the best working model of how to match technology and people, reviews the experience of several "high tech-high QWL" plants. These

Learning ability is becoming more important than past training.

plants are designed according to the principles and concepts of socio-technical systems thinking. They explicitly reject the scientific management of a Tayloristic approach to organization design — simple jobs, hierarchies of management and the rigid separation of thinking and doing. Instead, these plants are characterized by self-regulating teams, flat organization structures and challenging roles for all. These innovative plants are all successful in meeting

the needs of both people and the technology.

However, with this success comes a unique set of "problems." These include the need for a new concept of skill and the difficulties involved in redesigning career paths so managers (as well as workers) learn to work in teams and are promoted for the quality of their teamwork. These problems must be addressed if the benefits of new technology are to be fully realized.

The very character of post-industrial work... increases the significance of group processes.

Beyond Mechanization concludes by identifying other factors which may prevent us from reaping the benefits of high technology. As Hirschhorn states, his book, while drawing on the current practice of a few organizations, describes a potential system of technology and work; it does not estimate the likelihood that such a system will fully emerge. The new technologies suggest some parameters within which work design choices are and will be made. However, social and political forces will also shape which choices are pursued.



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Ministry of
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March 1988



NEW TECHNOLOGY
AND
ORGANIZATIONAL CHOICE



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EDITORIAL

Producing an issue on a single theme is a risky venture. There is bound to be some overlapping of ideas about the subject at hand. Certainly there are many common threads in this compilation of articles and interviews. But the subject of new technology in relation to both the social and technical dimensions of organizational change invites discussion from a variety of perspectives.

Hans van Beinum's lead-off article provides a historical and conceptual context in which to situate the new technology of today, pointing to likely trends and voicing some concerns which are echoed in various ways by the pieces which follow. Peter Warrian speaks of the enormous changes that are occurring in technology, in markets and in world trade. To find a successful way to do business in a changed world, Warrian argues, the relations between management and the employee must change; he warns of the danger of the present emphasis on cost-cutting at the expense of genuine workplace reform. Keith Newton points to some of the recent research done at the Economic Council of Canada on the labour market consequences of technological change, and stresses the importance of an imaginative blending of technological objectives with human needs.

Ursula Franklin cautions us about the negative impact that technology can have on people's lives, both at work and away from work, and she speaks of how crucial it is to intervene at the design stage if we are to develop technology which liberates rather than controls. The panel discussion reflects a wariness about the effects of technology on women at work. While the new technology gives us the potential to create dramatically better jobs, the reality is too often further isolation and no more pay, without more control over one's work life.

Sweden has always been in the forefront of experimenting with ways to maximize technical efficiency and human choice; Jacquie Mansell's overview of the Development Programme brings us up to date on some recent projects there. In Australia,

Merelyn Emery's involvement in workshops to examine repetitive strain injury among public service workers reaffirms her belief in the necessity of broad participation in planning and decision-making for the successful implementation of technology.

Here at home, new technology is gaining greater prominence. From the perspective of people actually operating new technology, perhaps the single most important initiative is Labour Canada's Technology Impact Programme and its predecessor, the Technology Impact Research Fund, which have made possible extensive studies of technology's effect on workers and the workplace. We are pleased to include an excerpt from the Canadian Auto Workers' study, as well as brief accounts of three others.

While in some ways new technology is like old technology, the magnitude of its power to integrate time, space and tasks will make its impact vastly more pervasive. In Canada we have hardly begun to feel that impact, or to think about the issues it raises. We need a public policy founded on informed public debate about how best to ensure a fair distribution of technology's cost and benefits. In concentrating on the importance of democratic workplaces to the effective and equitable implementation of new technology, this issue of FOCUS makes a timely contribution to that debate.

Cover photo: Bo Elfving

A French translation of this issue of **QWL FOCUS** is available free of charge upon request.

New Technology and Organizational Choice

by Hans van Beinum

Introduction

At present we are faced with two radical shifts which are taking place simultaneously: the development of a new organizational paradigm and the emergence of a new technology. In this discussion we will focus on some of the general aspects of this relationship between new forms of work organization and the new technology, and the importance of understanding technological renewal in the context of organizational renewal. A brief review of the relationship between work organization and technology since the beginning of the industrial era will clarify how crucial this relationship is.



Richard Bell and Associates

Dr. Hans van Beinum

The first phase of industrialization in 18th century England was the transition from a cottage industry to the "factory system" of work organization. What chiefly distinguished this new way of working was the detailed division of labour that enhanced the role of semi-skilled workers at the expense of the multi-skilled craftsmen, and created a new class of unskilled labour.

Emery explains how the first phase of industrialization did not emerge on the

back of any particular technological revolution and certainly not on the back of the steam engine. The industrial system was made possible by the factory system — a form of work organization, not a new technology (1). It provided the seedbed, however, for the technological development of the next phase, which involved the application of steam power to factory machinery. It is important to understand that the new principles of the organization of labour had appeared before the new steam technology was captured by the socio-economic and political powers of that time (1). This second industrial phase emerged with the firm acceptance of the new principle of organizing work (i.e. the factory system), which became the guiding principle for the design of production systems for all the succeeding phases until today.

The next technological revolution, which took place about one hundred years later, began with the spread and application of electricity, the development of petrochemistry, and the rapid growth of the transport sector. These technologies formed the bases for the development of a new social and economic order, often called Fordism, which has come to dominate our culture in the last fifty years. Its main characteristics were the connection between mass production, based on the principles of scientific management, mass purchasing power, and social security. The main groups involved in regulating this socio-economic order were the mass production industry, the mass organized worker's movement in the form of trade unions, and the polity, in which the various parties determined social policy in the democratic parliamentary systems. That this relationship between the design principles of work organization, socio-economic infrastructures and technology has been played out in different ways in different parts of the world — the U.S., Europe and Japan — is an indication

that simple technological determinism does not exist (2).

Today we find ourselves in the midst of another technological revolution, this one formed by the new core technologies of micro-electronics, biotechnology and new materials. The societal implications of these technologies are complex and have not yet crystallized, and thus are only visible to a limited extent. The various interdependencies on both micro and macro levels are shifting and consequently the present regulating socio-economic and political structures are in transition.

It is becoming clear, however, that the new technologies are not just another technological step forward in the series from water-powered looms, steam-driven hammers, electro-mechanics and petrochemical processes. As Emery pointed out, we are dealing not with a *phase* change in the old system, but with a *system* change — a change resulting from the conjunction of the new technology and the emergence of a new organizational paradigm (1). This paradigm, with its design principles based on the multiple capabilities of people, integrates the democratization of work and organizational performance.

We are now experiencing a radical shift in which the technology will magnify and extend the meaning of the new forms of work organization. This shift will revolutionize the interface between people and machines, and people and knowledge (1). What the new organizational paradigm and new technology have in common is that both are based on the release of human capabilities. This makes the present technological revolution, at least potentially, a "knowledge" revolution.

The New Organizational Paradigm

Technology is as old as mankind. For millions of years humans and their ancestors have been using technology. The earliest example is probably the use of stones as a device for scraping and cutting. Without some form of technology it is virtually impossible to engage in work. Conversely, we

cannot understand or explain a technology without knowing what kind of work it makes possible. From an existential and practical point of view therefore, *technology is not a thing but a relationship*. The relationship between people and their artefacts.

All technologies are tools and have meaning only when being used and controlled by people. Introducing a new technology means introducing a new relationship, and managing technological change means managing a relationship which is changing.

Understanding work as a relationship between people and their tools takes on a special meaning when we consider this relationship on the organizational level. This is because the effectiveness of the organization is determined by the way in which the organization is able to manage two types of highly inter-dependent relationships:

- the relationship between the organization and its various environments (i.e. the open system characteristics), and
- the relationship between people and technology (i.e. the socio-technical system).

As our world becomes increasingly complex, unpredictable and turbulent, the demands made on organizations for active adaptation, flexibility and ongoing learning are becoming very high indeed. Organizational performance, and in many cases organizational survival, depend on the ability to respond to these demands and to manage continuous change. However, the capacity for organizational flexibility, adaptation, and learning resides in an organization's human resources. Therefore, the principles and practices of job and organizational design will determine whether this organizational capacity can be mobilized and sustained, and consequently, whether organizational efficiency and effectiveness will be achieved.

The Choice of Design Principles

There are only two basic design principles for adaptive systems. The choice is with regard to the way an organization designs redundancy into its

system. Unless an organization has a certain amount of over-capacity, or redundancy, it does not have the flexibility, it cannot generate the variety, and it does not have the ability to self-organize, all of which are necessary to enable it to adapt to its environment. Organizations need redundancy in order to survive.

The choice — between redundancy of parts or redundancy of functions — represents a choice between two quite different value systems.

In the first option people have narrowly specialized individual tasks, and are being used as uni-functional components, as replaceable parts of a machine. The basic building block is formed by the one person - one task structure. Working from this design principle, special parts have to be added to the system for the purpose of control, and to back up or replace parts whenever they fail. It creates a typical bureaucracy, that is, a rigid, highly stratified, multi-level, and hierarchical system. It reveals a mechanistic view of organization.

The second option, redundancy of functions, recognizes the multiple capabilities of people and gives people more complex roles. Instead of spare parts being added to the system, additional functions are developed in each of the operating parts (i.e. people). Each person is thus able to perform a range of functions. People have the opportunity to be actively involved in the affairs of the workplace and to develop their ability to handle a wide range of responsibilities. Developing a worker's capacity to handle a wide range of roles increases variety for both the organization and the individual workers, and creates the conditions for self-regulation. The building block in this type of organization is not the one person - one task structure, but the self-managing group (see Figure 1).

QWL is based on the organizational design principle of redundancy of functions, which integrates the democratization of work and the economic performance of the organization. How redundancy is designed into the system — whether as parts or as functions — will determine the nature of the relationship between people and

technology which forms the basis for job and organizational design.

Organizations are Socio-technical Systems

Organizations must not only be understood as adaptive (i.e. open) systems but also as socio-technical systems. The concept of the socio-technical system, which was developed thirty years ago by the Tavistock Institute, arose from the consideration that any production system requires both a technical organization (i.e. equipment, material, and process layout), and a social system which creates and governs the relations among those who carry out the necessary tasks.

How these two systems are interrelated is crucial for releasing the potential effectiveness of the organization. The social and technical systems are interdependent and basically complementary. If we design and manage the work situation so that the social system and the technical system are interrelated in the highest possible complementary way, we can achieve a joint optimization of the two systems, and thus of the functioning of the organization as a whole.

If, however, technical systems are not translated into tasks in a way which is in accordance with human needs and characteristics, we will create organizations which will function far below their potential level of effectiveness. Similarly, if we arrange the social system without due regard for the demands and characteristics of the technical system, we end up with an ineffective and inefficient work organization. Redundancy of functions is therefore the obvious and logical choice in view of the system characteristics of the organization.

The basic questions with regard to any work organization are therefore:

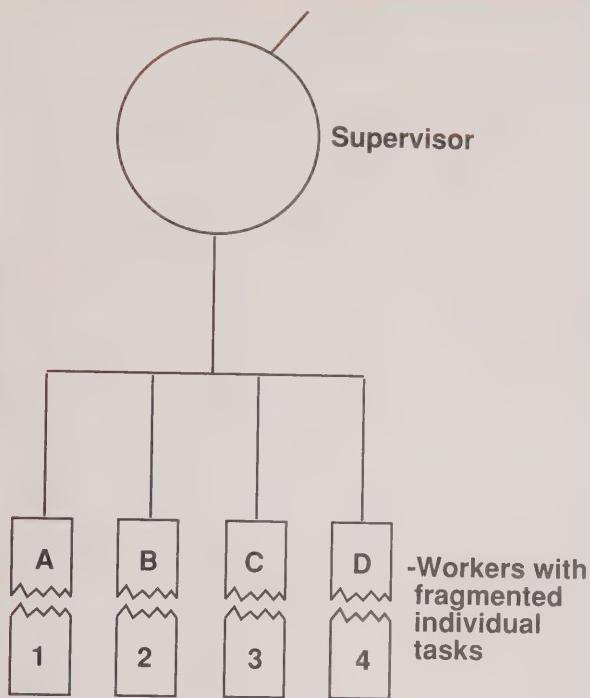
- what are the critical requirements of the technology, and
- what are the characteristics of the human system?

The challenge lies in matching people and technology.

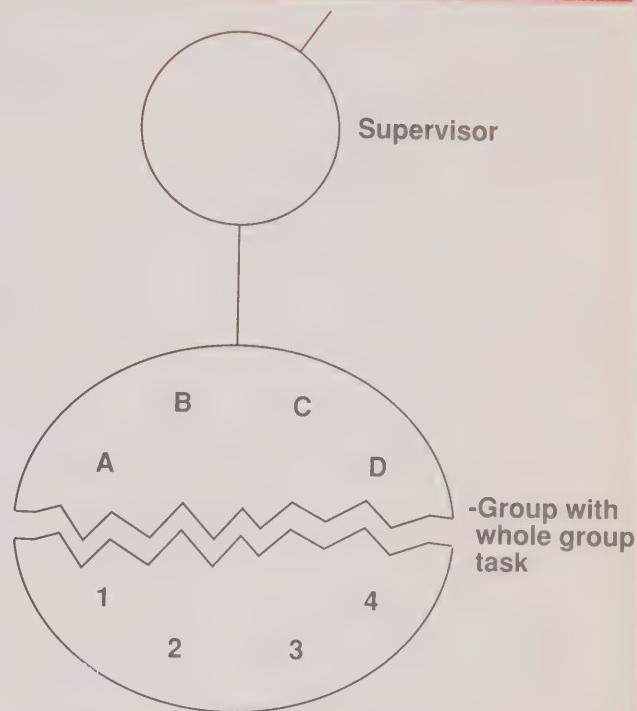
Figure 1:

The shift from an old to a new form of work organization

Organization structure according to old paradigm



Organization structure according to new paradigm



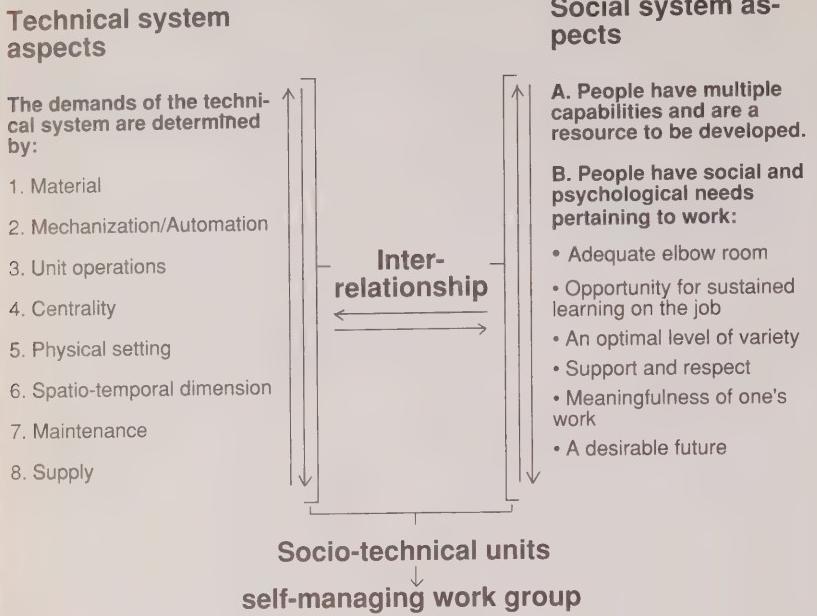
Characteristics of the old paradigm

- redundancy of parts
- emphasis on external coordination and control
- fragmented socio-technical system
- technological imperative — man as extension of machine, a commodity
- organization design based on total specification
- maximum task breakdown, narrow skills
- building block is one person - one task
- alienation

Characteristics of the new paradigm

- redundancy of functions
- emphasis on internal coordination and control
- joint optimization of socio-technical system
- man is complementary to machine and a resource to be developed
- organization design based on minimum critical specification
- optimum task grouping, multiple broad skills
- building block is self-managing group
- involvement and commitment

Figure 2: Socio-technical system characteristics



The Social System

Our understanding of the characteristics of the human resources is a first prerequisite for being able to design jobs and organize work effectively. In this connection two sets of characteristics are pertinent to the organization of work:

- people have multiple capabilities; they are a resource to be developed,
- people have social and psychological requirements of their work situation in addition to those usually specified in a contract of employment (i.e. other than wages, hours, safety, security of tenure, etc.).

Competence and commitment are interdependent and mutually reinforcing characteristics of people. They make the new technology work, but at the same time they are highly dependent on the nature of the job and the quality of the work environment. Social and psychological needs pertaining to work are now recognized as key principles of job design and include:

- adequate elbow room, an opportunity to be involved in the decision-

making affecting one's job;

- opportunities for learning;
- an optimal level of variety;
- conditions where workers can and do get support and respect from their fellow workers;
- a sense that one's work is socially meaningful, and
- a desirable future.

The basic building block of organizations designed according to the principles of joint optimization of the socio-technical system is the semi-autonomous or self-managing group. This group collectively has the responsibility and the skill to manage a set of interdependent tasks which together form a natural whole.

Human dignity and organizational performance are two sides of the same coin.

The Technical System

The next step in the process of designing the socio-technical system accord-

ing to the principle of redundancy of functions (i.e. the joint optimization of the two systems) is to identify the demands arising from the technology. The organizational design is greatly influenced by the range of choices offered by the particular technology. Every socio-technical system has therefore to discover its own level of joint optimization.

Each technical system can be characterized along a number of dimensions which include:

- *the natural characteristics of the material* being transformed or fabricated, e.g. the tensile strength of cotton in textile mills, or the accuracy and correlation of data in information processing systems.

- *the level of mechanization or automation.* This is the most important dimension. Changes in the level of automation will inevitably effect changes in the other dimensions. For instance, when powerful machines make the difference in hardness of coal less relevant or when, as a result of the application of micro-electronic controls, the job shifts dramatically from attending and controlling a machine to intervening in an automated system only when conditions become destabilized.

- *the unit operations (steps) required* to complete the various changes in the production process and the natural grouping of these units into phases of production. This dimension requires a lot of attention as it plays an important role in identifying the most natural boundaries of the technical system and thereby will indicate the appropriate contours for the various socio-technical units. The unit operations allow one to determine the various "whole tasks" which form the areas of responsibility for the self-managing groups.

- *the degree of centrality* of the different production operations. Not all tasks in the production process are of equal importance, i.e. central to the outcome of the process. There are differences in the degree of effort or skill required.

- *the immediate physical setting* such as temperature, noise, dust, dirt, etc.

- the spatio-temporal dimension of the production process. The spatial layout and the spread over time, such as operations being carried out simultaneously or sequentially, will influence coordination, mutual support and interpersonal contact.

- the maintenance operations include tasks needed to maintain the conditions required by the production process.

- the supply operations constitute another major set of tasks that seek to maintain a planned rate of production in the face of variations in the import and export of materials and information to and from the external environment (3).

Each technical system has its own distinct profile of characteristics.

Each makes its own particular set of demands on the social system, but also provides its own specific range of opportunities for meeting the social and psychological needs people bring with them to the workplace. (Figure 2)

Although the distinctive features of the overall technical system are affected by all the above dimensions, they are increasingly determined by the level and extent of automation. The degree of automation influences all other technical dimensions. Consequently it has a great impact on the characteristics of the socio-technical system and thereby on the range of organizational choice.

All work requires both energy and information. These must be provided by people or by a substitute for people, a machine. Whenever human attributes are transferred to a machine, that machine has taken on an "order" of automation. The more human attributes performed by a machine, the higher is its level of automation (4). These attributes can be ordered from the transfer of energy (i.e. power tools) and dexterity (semi-automatic devices) to the transfer of evaluation (of multiple judgements such as by means of computer-controlled production) and certain kinds of learning (computers which are able to programme themselves). (Figure 3)

Figure 3: Levels of automation

Human attributes transferred to machines		Examples
None	Does not replace human energy or basic control.	Shovel, knife, pliers, axe, typewriter.
Energy	Muscles are replaced by the basic machine function.	Electric hand drill, spray gun.
Dexterity	Completes an action when initiated by an operator.	Pipe threading machine, radial drill, spray gun.
Diligence	Carries out routine instructions without aid by man. Starts cycles and repeats actions automatically.	Engine production lines; self-feed press lines; automatic copying lathe.
Judgement	Measures and compares result to the desired size or position and adjusts to minimize any error.	Feedback from product: sizing grinders; size-controlled honing machines. Positional feedback: pattern tracing flame cutter; tape controlled machines.
Evaluation	Is cognizant of multiple factors on which machine or process performance is predicated, evaluates and reconciles them by means of computer operations to determine proper control action.	Rate-of-feed cutting; maintaining pH; turbine fuel control.
Learning	Machine sets up and tries subroutines, based on the general programme. By remembering which actions were most effective in obtaining the desired results, the machine "learns by experience."	Utilization of intercity telephone circuits, sophisticated elevator dispatching; mechanical "maze running rat."
Reasoning	Ability to forecast trends, patterns and relationships, from incomplete facts. Exhibits "intuition" by going beyond available data.	Sales prediction, weather forecasting, "champion" chessplayer, actuarial analysis.
Creativeness	The ability to originate works to suit human tastes and preferences. Not copying, imitating, or following plans and instructions.	Write music; design fabric patterns; write poetry? design products? create paintings? create original automatic machines?
Dominance	Governs actions of men, machines, and other systems. Acts as a "commanding general." Machine is no longer servant but master.	Science-fiction writers are talented in conjecturing such machines.

Adapted from George H. Amber and Paul S. Amber, *Anatomy of Automation*, Englewood Cliffs: Prentice Hall, 1962. Although Amber and Amber produced their yardstick for automation more than 25 years ago and well before the explosion in microtechnology, their table has not lost its relevance.



Bell Northern Research

Advanced technology is itself a requirement for developing the newest technologies, such as the production of experimental gallium arsenide chips necessary for very high-speed integrated circuits.

The New Technology

When machines take over perceptual skills for monitoring and particularly conceptual skills for storing, processing and transmitting data, we are dealing with higher levels of automation, the new technology of micro-electronics.

The miniaturization of the computer, the rapid increase in computer power in conjunction with the dramatic reduction in the cost of computing, combined with the convergence of electronics, computing and telecommunications, have created a tidal wave of technological innovation.

The nature and speed of the developments are illustrated by the fact that any home computer today, costing as little as \$200, can outperform the first digital computer built in the U.S. in 1946, which cost half a million dollars, weighed 30 tons, filled the space of a two-car garage, and contained 18,000 vacuum tubes, which failed on average at the rate of one every seven minutes (5).

The information technology revolution is epitomized in the pea-sized silicon chip, invented only in 1971, and the driving force behind robots, computer aided design (CAD), computer aided manufacturing

(CAM), flexible manufacturing systems (FMS), computer integrated manufacturing (CIM), expert systems, and office automation.

The diversity and ubiquity of developments in micro-electronics, combined with the complex socio-political and economic interdependencies in any society, make the prognosis of the impact of the new technology complex and controversial.

It has been said that "technological innovation does not proceed in a straight line. It weaves and bobs and lurches and sputters." [6] Nevertheless, a number of major developments stand out at present. They include:

- the emergence of computer software as the leading part. At present the booming software industry is setting the pace of the information technology revolution. Three companies dominate the computer hardware market, but in the U.S. alone there are about 25,000 software companies.
- the remarkable rise of the personal computer which has placed computing power on desks in homes, offices and schools. The personal computer has thus unexpectedly become the basic building block of information technology.

• the race now on to build the next or "fifth" generation of computers, machines that exhibit artificial intelligence. It is proceeding in two directions: a) towards an optical computer, and b) towards a neural-net computer which uses traditional transistors connected, however, in parallel as are the nerves in the human brain. Both promise much greater speed, the flexibility to reorganize the hardware through reprogramming, and a capability called "pattern mapping" which is critical for such things as comprehending speech and artificial vision.

• the explosion of innovation in the whole area of interactive telecommunications. The merger of telecommunications and computer technologies has made possible the "intelligent" digital network in which information is handled by high-speed, digital transmission systems connected to electronic switching systems that are controlled by digital computers. It carries not only telephone calls but also a wide variety of other signals such as data communications, television, facsimile and teletype (5).

The implications of these developments for the structure and performance of organizations are still unfolding. However, we can distinguish three general trends in new technology which will have a direct bearing on the design of organizations.

First, the order of automation will still get higher, i.e. machines will become even smarter.

Secondly, the new technology is becoming increasingly flexible, thereby enabling the organization to become more flexible in its turn. Multiple purpose machines will make it possible to produce a wide range of products in a single plant. Instead of the costly time-consuming process of retooling, there will simply be a change of software.

Third, we will see increasing integration of equipment and of information media, i.e. the integration between devices and services through the use of international standards. People and information will be increasingly connected across traditional boundaries.¹

New Technology and Organizational Design: Some Concerns

The relationship between new technology and organizational design will be discussed from three perspectives, each one illustrating an area of concern. These perspectives are:

- the necessity to understand the process of technological renewal in the context of organizational change and design;
- the implications of technical integration for job and organizational design;
- the need for socio-institutional renewal.

1. Understanding Technological Renewal in the Context of Organizational Change and Design

Higher levels of automation, flexible technical systems and a dramatically increased integration of machines and information make up the profile of the new technology in the workplace. Redundancy of functions has become the built-in characteristic of the technical system. Therefore, the new technology will not work either effectively or efficiently unless it is linked to a social system which is flexible, adaptive and oriented towards ongoing learning — a system made up of people who are committed and able to handle a broad range of responsibilities.

In short, new technology needs an organization which is designed and managed according to the values and principles of the new organizational paradigm. Technological and organizational renewal go hand in hand.

However, the coupling of new technology and organization design based on the redundancy of functions only becomes viable when there is a strong sense of shared objectives and shared values. Corporate goals and values must be articulated in such a way that they clearly and publicly connect organizational objectives with the design principles of the new organizational paradigm. Otherwise there will be insufficient common ground to develop effective policies

and to motivate people to commit themselves to self-management.

As a result of economic and social pressures, the last ten years have shown a steady and significant increase in new forms of work organization. One can expect that this process will be considerably accelerated since the demand for flexibility in the organization is now coming directly from the new technology.

However, in spite of these strong trends and the power of their combined logic, there are some considerable psychological and cultural obstacles which stand in the way of organizational renewal. The old organizational paradigm, still firmly anchored in our culture and in our socio-economic structures, is much older than scientific management or the industrial revolution, and reaches much further than the boundaries of the industrial organization. The megamachine, to use the metaphor Lewis Mumford employs to describe the old paradigm, seems increasingly inadequate to cope with the emerging characteristics of the new society, but it is still very strong indeed.

The values underlying our organizational structures are historically embedded in a broad societal context. Organizations cannot be changed in isolation from their environment. Organizational change of a fundamental kind, such as the transition from the old to the new organizational paradigm (see Figure 1), is really an example of a societal change which takes place in the context of the organization. We are faced with a social ecological shift which cannot be reduced to a technical problem.

Nevertheless, it is not uncommon to see a combination of new technology and old organizational paradigm, particularly in the area of office automation where the technology creates the opportunity to design jobs and organize the production process in such a way that workers are reduced to objects, replaceable parts of a machine. In those circumstances we have not used the unique opportunities which the new technology provides for the democratization of work. Instead, we have created conditions of

alienation which will surpass even those of the assembly line.

It is a matter of choice. Unfortunately, it is not difficult to create dumb organizations which consist of smart machines and which by definition need a long time to learn about their own system characteristics. Artificial intelligence leading to artificial ignorance.

2. The Implications of Technical Integration for Job and Organizational Design

In order to design jobs and organize work in such a way that they will jointly optimize the social and technical systems, it is essential to identify the boundaries of the technical system. Only then is it possible to determine the whole task which forms the area of responsibility of the social system, i.e. self-managing group.

However, the growing integration of the technical system makes it increasingly difficult to identify the technical system's "natural" boundaries. With the integration of machines, computing and communication, the existing boundaries will shift dramatically. What happens, for instance, when communication is reduced to processing information and the only connection between worker and organization



Chips with everything . . .

is the one between the terminal and a central information unit? In the integrated office, it becomes possible to link up word processor, computer and telephone to such an extent that the natural boundaries of the technical system simply disappear. All workers can have simultaneous access to all information, are able to manipulate it, and are in direct and total communication with each other (voice, image, text and data). In those circumstances the decision about what constitutes the whole task becomes primarily a social and political one. We can no longer make use of the technical system to aid in identifying the boundaries of the work group. At this stage of automation, socio-technical system analysis of the traditional kind becomes obsolete.

Shifts of a similar kind can be seen in manufacturing, where the integration of the technical system requires workers to have broad conceptual skills in order to do their job, which is to manage a system instead of attending a machine. The functional, physical and geographical boundaries between such activities as engineering, manufacturing, finance, marketing and R&D are also changing rapidly. Not only are the internal relations being transformed, but the boundaries between the organization and its environment will be affected and have to be redefined. These processes of intra- and inter-organizational transformation and integration suggest that we have to review our understanding of organization. We have to take the emphasis from the noun, "organization" and put it on the verb, "to organize." Rather than making decisions about finite structures, organizational design will become more a matter of being involved in the never-ending process of organizing changing relationships between systems.

The criteria for the design of jobs and the organization of work have to come increasingly from within the social system, a development for which we are neither intellectually nor politically well prepared. The fact is that new technology will make organizations more dependent on their human resources. Consequently, the ability of the organization to deal with such questions as power, equity, learning and commitment will be crucial for its

effectiveness. Participative planning and design, with their emphasis on ongoing learning and development, form the cornerstones of a successful corporate strategy.

3. The Importance of Socio-institutional Renewal

Not only is there a strong link between technology and organizational design, but also between the resulting techno-economic system and the social and institutional systems in our society.

The dominant old order, characterized by the connection between mass production and mass consumption, is being replaced by a new techno-economic system with a strong emphasis on flexibility, decentralization and diversification. In this shift from economies of scale to economies of scope, it seems inevitable that, corresponding to the changes in the techno-economic sphere, transformations on the socio-institutional level have to take place as well.

The development of flexible and adaptive systems cannot and should not be limited to the micro level. The socio-political structures which were appropriate to maintain social stability in the old socio-economic order are not necessarily the right ones for dealing with the new techno-economic system. The rift between economic and socio-institutional development and the distinct possibility of growing social instability make it imperative to develop new forms of social regulation. It is obvious that one of the most urgent requirements is for a new social consensus, a New Deal, with which the majority of groups in society can concur. We require flexible new forms of governance which can be responsive to the variety and diversity of local needs. Consultative mechanisms between government, employers and labour play a major role in this transition, but in order to be effective these structures need to be flexible and adaptive as well.

The integration of technological and organizational renewal cannot be sustained on the organizational level unless there is a parallel process on the macro level. Organizational choice

and political choice are closely related. The most important challenge facing government and its social partners is the need for social innovation. In that respect the new organizational paradigm, with its values based on direct participation and the release of human capabilities, will be an important compass in the search for new structures for an adaptive and compassionate society in turbulent times.

¹ For an overview of the increasing interdependencies of the new technologies and their impact on the social system, see Hazel Kerwood's Working Paper (listed below) and her chart in this issue.

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Changing Structures, Changing Strategies *

by Peter Warrian

I want to spend some time this morning talking about QWL and productivity in the light of what is happening in the industrial relations system in North America and in the economy generally. First, I want to refer to some points made earlier to the effect that rather than a single model for us to draw on in addressing the issues of QWL and productivity, and the larger economic and industrial relations problems, there are in fact competing visions and agendas. Secondly, I propose to make some remarks about the prospects for revitalization of the industrial relations system and some comparative comments on trends within Canada and the United States. Thirdly, and mainly, I want to talk about the larger process of economic restructuring that I think will overshadow all our efforts — not to the extent of foreclosing them, but in such a way as to provide the essential context in which we have to deal with work ecology, industrial relations, productivity, and collective bargaining.

I shall begin and end by asking two basic questions, the answers to which will largely determine how we handle our future in the workplace and in the industrial relations system, if not in the larger economy. The first question, and it will seem like a very obvious one, is: Has the world changed? Change is, of course, evident everywhere, but among unionists and management there is widespread disagreement as to how deeply and in what directions change has been taking place. I think, for instance, that there is a tendency among the union leadership to believe that the world hasn't essentially changed, that if we could only get rid of a few wacko monetarist economists and a few opportunistic right-wing politicians, we could return to the good old days of post-war business unionism. Likewise, there are managers who still believe that if only they could crank down the wages and take

back a few contract provisions, they could return to the good old days of watching the costs, sustaining their usual production, and pursuing their traditional prerogatives in the workplace. On the contrary, I think the world has changed for both parties. No-one has the luxury of a no-change position.

We have to use our culture, our institutions, to make sure that the ordinary worker benefits from the process of change.

The second question is: Is there an inherent conflict between economic efficiency and social equity? That is, are gains, whether in the workplace for individual workers' rights or wage gains, inimical either in their very nature or in our present context to adapting to a restructured world economy, changing technology, changing markets? Do we have to forego social progress in order to sustain competitiveness and productivity?

John Rankin, in his presentation on behalf of Northern Telecom, put forward what I would describe as the enlightened self-interest view of progressive management. He was quite explicit in talking about the productivity drive at Northern Telecom. The target they've used is 15% gain per annum. They pursue that target in a spirit of enlightened self-interest. Obviously they would like to make money; they would like to have a better workplace; they would like to have better conditions for their employees; but the productivity drive is foremost. By his own admission, Northern Telecom does not have a single overall QWL programme. They do a number of things traditionally associated with QWL, with improvements in work ecology, improvements in the workplace, but only as part of a general drive to pursue productivity



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enhancement in a multi-faceted way. As an outcome, Northern Telecom has remained competitive and improved productivity, while repositioning its products and its facilities. Its Canadian workforce has been sustained at around the 21,000 level, as I understand the figures, but there have been casualties. On the equity vs. efficiency issue, John Rankin was quite explicit: while they could give some measure of income security, a guarantee of employment security could only come from the market.

Reg Basken, of the Energy and Chemical Workers, spoke passionately from the values of humanism, social conscience, improvement and social progress which have been historically associated with the labour movement. But he did note the divergence of view between a union leadership perception of QWL as a means to improved productivity, and a management perspective perception of productivity enhancement as a means of securing long-term gains in QWL.

He stated the traditional union view that the concept of productivity, as encountered by workers at the bar-

* First delivered at the Ecology of Work Conference in September 1986, Peter Warrian's address presents a Canadian perspective on changes in the world of work, and remains extremely relevant to the field. It has not been published elsewhere.

gaining table, is seen essentially as a speed-up — greater control and greater flexibility for management but not for workers. The Energy and Chemical Workers' Union, like other unions in Canada, has agreed to QWL experiments where they did not try to end-run the union, where they have sought to treat workers as something other than just another factor of production, and where they have contributed to the development of a different relationship with management. Reg Basken spoke of the change that can come within existing collective agreements, provisions for seniority, work rules — the elements that were developed to protect workers against the arbitrary decisions of foremen in the 1930s — and he emphasized that we have to use our culture, our institutions, to make sure that the ordinary worker benefits from the process of change.

A point on which both speakers agreed was that there is as yet no MODEL to be derived from other sources, there is no single model for a complex enterprise like Northern Telecom that would embrace all the initiatives and all the activities that might be advanced in the name of QWL. But I think that out of the interaction of those competing visions of managers and union leaders we will get the substance and the guidelines for our future. We have to draw on the strength of that interaction.

There is a lot of talk at conferences like this about trust — much of it misplaced, in my view. For one thing, it personalizes the issue in a way that doesn't particularly facilitate the process. For another thing, there is actually no shortage of trust, of a certain kind — trust that the collective bargaining process will follow its accustomed course. What we are very short on is risk-taking. And in dealing with potential changes in work ecology against the backdrop of both the established industrial relations system and the restructuring going on in the global economy, risk-taking, not trust, is going to be the key variable.

Turning to the matter of the revitalization of the industrial relations system in North America, I want to draw on some remarks made by Bob McKersie

of the Sloan School of Management at a conference in Detroit earlier this year, and to comment on the relevance of those remarks to the Canadian situation. Among other points, McKersie proposed, first, that the unionized side of our society is currently faced with a fundamental challenge, both from foreign competition and from the domestic policy mood. Secondly, that in the course of a basic shift in how we do things in the industrial relations system, some old ways of doing things have gone for good, but as yet we have no coherent concept of what will replace them.

Risk-taking, not trust, is going to be the key variable.

Thirdly, he argues that in the sphere of QWL initiatives there has been a significant reversal in the positioning of the unionized sector, in that many if not most of the new initiatives in the United States are now coming from the non-unionized sector, with the unions obliged to play catch-up. Much of what McKersie has to say seems to me important and true — for the United States. For Canada, the situation is different.

To begin with, unionization rates in the two countries are dramatically out of sync. Contrary to whatever impressions may be gained from the U.S.-based media, unionization in Canada has never been higher (at 38 to 40%) and continues to grow. The figures of 1951, which had unionization in the United States at about 37%, and in Canada at about 21%, have been almost exactly reversed. The fundamentally different position of the labour movements in the two countries has an important bearing on the future of developments in QWL. Furthermore, in Canada, some major, if not the foremost, QWL initiatives have taken place in unionized settings, such as the Shell/ECWU experiment at Sarnia.

Another important difference has to do with developments in wage bargaining. Such developments will have a significant impact at the point where QWL interfaces with collective

bargaining. Recent years have seen a pervasive disintegration of pattern bargaining right across the spectrum of unionized industry in the U.S., and the emergence of what McKersie calls "contingent compensation schemes." This disintegration has arisen partly out of the breakdown of master contracts, but partly also out of the onset of concession bargaining.

In Canada, however, these developments have not occurred. Concessions have been rejected by the Canadian labour movement, sometimes at the price of a significantly higher level of job losses. And since bargaining has always been more localized in Canada, there have not been master contracts on the same scale. Only in the mining industry, where wage rates are being linked to the price of metals for the first time, has there been any development of contingent bargaining — moving away from industry-wide patterns to settlements reflecting the dependency of the specific employer, even the specific facility — on international metal markets. Whether this will spread to other industrial sectors is anybody's guess.

Other changes that McKersie points to are clearly happening here as well. For example, the pursuit of new forms of participation by individual workers in the workplace, and by unions in organized situations. Traditionally excluded from decision-making about investment and the overall strategy of the company, and excluded likewise from decision-making on the shop floor, the union has been restricted to a narrow middle ground of participation.

The new challenge for unions will be to find greater participation at the upper strategic level. This will most probably not entail any widespread representation on boards of directors, nor any large development of profit-sharing, but rather will involve greater informal participation by union leadership in strategic decision-making, mostly affecting job security and investment decisions, as well as matters relating to trade and to government policy with respect to finance and allocation decisions. A constructive example in the Canadian context is the

Canadian Steel Trade Conference which in the last two years has brought together the steel industry leadership, union and management, for the first time (see page 33 of this issue). The Canadian example be-speaks more hopeful progress in the future than relations in the American steel industry.

In looking to a revitalization of industrial relations, McKersie's piece is a hopeful one, especially in relation to the Canadian situation where a strong union presence can be taken as a given. Precisely because of that union presence, however, there is an inevitable tension between a QWL agenda and the collective bargaining agenda — a tension usefully discussed in an article by Tom Rankin.¹ He argues that in the difficult process of adjustment two key ground rules for QWL must change, namely the rigid separation between contract negotiation and administration and the parallel system

approach to developing innovative forms of work organization, which unions inevitably find at least competitive, if not threatening. And he concludes by stressing the need for, and the inevitability of, the integration of QWL with collective bargaining. But if this integration is to be realized, it is important to consider some of the recent and current factors affecting the context of collective bargaining, and of QWL, and specifically the course and the terms of economic restructuring in our society.

Has the world changed? And is there a conflict between equity and efficiency? For QWL, the world has changed. Even as recently as five years ago we talked about QWL against the background of three major currents of discussion: the first was the human relations critique of Taylorism and scientific management, the dehumanizing of work as represented most graphically in the dominant

There is an inevitable tension between a QWL agenda and the collective bargaining agenda.

models of the industrial age, the steel mill and the auto assembly line. The second was the concern of unions over health and safety, which revived a direct concern for the nature of work that had been largely in abeyance since World War II, as unions' attention had been focussed on wages, benefits, etc. The third impulse, certainly in Canada, came from the European experiments with industrial democracy. What links all three of these sources of QWL discussion is their appeal to idealism, and it is that idealism that distinguishes the impulses of the early period, the 1970s, from those of the present.



Technology will always require skilled workers.

Another change in the context of QWL discussions has to do with the business cycle. The international conference on QWL held here five years ago didn't lay any major stress on the business cycle, and in retrospect that was a mistake. As a factor in what happens to QWL, the business cycle is of crucial importance. With the recession of 1981-1982 Canada lost 20% of all its jobs in manufacturing; unemployment rates hit 12 to 13%, and only very slowly inched down. A common managerial reaction to the recession was the "holy war" of cost-cutting, which led to reborn adversarialism, usually expressed in terms of concession bargaining. On the part of the trade union movement, particularly in Canada, responses to the recession included a reaction against QWL. Most importantly, an effect of the recession itself was to undermine QWL initiatives by prompting senior management to regard QWL projects as expendable luxuries, frills to be jettisoned in the return to the hard adversarial positions of earlier days.

There is always someone, somewhere in the world, who can underbid you, with enough starvation and repression if necessary.

Coming forward to the present, we can see how QWL and productivity discussions together are overshadowed by the rhetoric of and preoccupation with international competitiveness. Unless we define some very different directions, QWL will come to be seen once more as an expendable luxury, to be sacrificed this time to competitiveness, as it was earlier sacrificed to cost cutting. Workers everywhere encounter messages about the need to be internationally competitive, which usually means wage-competitive. At the same time, they know there is always someone, somewhere in the world, who can underbid you, with enough starvation and repression if necessary.

Ironically, the short-term tactic of attempting to become the lowest cost producer in your established industry

may often lead to a dead-end street. The really significant wage reductions of 50, 75, 80% that would fundamentally "clear" the market and re-establish traditional productivity are impossible to achieve. And the focus on short term cost-cutting breeds a resistance to innovation and provokes alienation of the workforce. To attempt to deal with the situation in terms of wage bashing and cost cutting is to fail to recognize that the world has changed.

The world has changed. Recent literature has argued that we are experiencing a second industrial divide, a fundamental change in technology, in markets, and in world trade that must fundamentally alter our assumptions about mass production and mass consumption that have prevailed since World War II. Economies of scale and cost cutting — those equations don't work anymore. Industrial bargaining has assumed those mass production models, and that is going to have to change as well.

First of all, standardized mass production is migrating to the newly industrialized countries. Secondly, there is a fundamental change in markets, such that the future for us will be in more segmented, specialized markets, higher value-added products on which the industrialized countries of western Europe, North America and Japan will tend increasingly to concentrate. The nature of production itself will change, moving to smaller or midsize facilities with more flexible production systems. There is a powerful

The changes in market and technology mean that the key factor to success in the future will be . . . flexibility.

message in this about change, dramatic, painful change. The change in the nature of the markets, of trade, and of technology will be such that the old mass production economies of scale, the mass production approaches to work, and the mass production approaches to industrial relations are all up for grabs.

There is a hopeful message in all this, which is that we have a future in those specialized higher value-added markets with new forms of flexible production. It is possible for management and unions to define a common agenda out of this situation, and to find new ways to do business together. There will be a painful transition but the changes in market and technology mean that the key factor to success in the future will be, not just wage competitiveness, but flexibility.

I will conclude by talking briefly about some new forms of economic production. While the drama and the pain of the great economic changes taking place in Canada are not readily apparent in Southern Ontario, which is insulated from the dislocations occurring in the forest industry, in mining, in industrial Cape Breton, in Sault Ste. Marie, the transformations in production are already visible here. Changes in production techniques in the auto industry herald changes all across the manufacturing sector. New competitive pressures, not only on price but on quality production, compel the introduction and diffusion of statistical process control (SPC) and of just-in-time delivery systems, production systems and inventory systems.

Those two examples reflect the change in the markets and the changes in the technology, and they beg the question of changes in work ecology and labour relations. You can't make SPC work, you can't survive in just-in-time delivery, unless you change the relationship between management and the employee. No enterprise can survive in these new contexts and cope with these kinds of change by sticking with the old norms of industrial discipline, of top-down management, of costly supervision, of a lack of discretion on the part of operators and workers. The introduction of SPC, for example, absolutely requires that operators have the ability to shut down the assembly line at their discretion over quality issues.

Such new techniques beg a different relationship in the workplace, a changed work ecology, and they can't succeed without it. The secret of Japanese productivity is not in the

technology — you can buy it, if nothing else — nor even in capital resources. The secret is that the quality is there the first time, as soon as it comes off the line, and the line virtually never breaks down. They organize around different relationships with their employees, different discretionary powers, different work schedules. The current push in North America to go to three shifts a day, seven days a week, in order to be more productive and competitive will probably have exactly the opposite effect. It's just trying to drive the old system a little bit faster, abandoning set-up shifts, preventive maintenance shifts. The results are quite predictable; it will alienate workers, the machinery will break down.

Where do the solutions lie then? Is it possible for us to find some new agendas and, quite bluntly, some new deals? We will have to look long and hard and creatively at new

approaches to management's rights and supervision, at industrial discipline. And unions will have to look at classification, work rules, job security and training. The challenge will be to find new flexible systems, but flexibility cannot mean, and will not be allowed to mean, simply greater flexibility of managers, of foremen, to throw people out on the street. These are the agendas that will arise out of the industrial relations system. They will necessarily have to be integrated with QWL initia-

Unless we find some soft path solutions, solutions grounded in work ecology and QWL, to the hard economic problems, we will have no solutions at all, and we will be less competitive and less productive in the long run. It is only through the soft paths that we will achieve the so-called hard solution.

About the author

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¹Tom Rankin, "Integrating QWL and Collective Bargaining," *QWL FOCUS*, Vol. 5, Issue 1, March 1986, pp. 3-6.

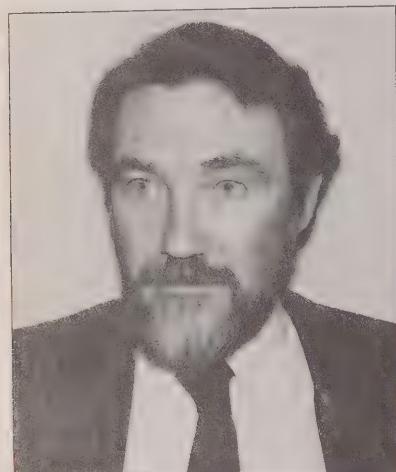


The nature of work changes greatly as automation takes over production and inspection of seamless steel tubes.

Technology and Jobs

New Studies from the Economic Council of Canada Look at Labour Market Effects of Technological Change

by Keith Newton



Dr. Keith Newton

From the talking cash register at your local supermarket to the celebrated Canadarm, new technologies affect our lives in some way. Technological change, of course, is nothing new. Throughout history it has been embodied in new products and processes that have profoundly affected human existence, sometimes for the better, sometimes for the worse. In Canada, in the late 1980s, we face a period of rapid technological advance that holds the potential to create new wealth and yield improvements in work and well-being.

But concern is being expressed about the social implications of new technologies, including their impact on the labour market. In particular, many Canadians share misgivings about what the new technologies mean in terms of jobs and income. Do the new technologies create or destroy jobs? Where will the new jobs be? Which occupations are threatened? What is happening to the quality of jobs and of our working lives? And if technological change is nothing new, why do such questions take on special urgency at this time? These are some of the general questions addressed in the Economic Council of Canada's

Labour Markets and Technological Change (LABTECHS) project.

One reason for urgency is the general economic climate in Canada. Productivity gains have been impressive since the recession of 1981-82, but the unemployment rate remains high in some parts of the country and uncertainties remain concerning the prospects for freer trade. While it is clear that we must embrace new technologies in order to be globally competitive, there are fears about possible employment effects. Second, the current wave of change is not only rapid, it is also pervasive: few people's lives, at home or at work, are unaffected. Third, the impact of the new technologies is uneven: there are both winners and losers. Fourth, the very unevenness of the technological impact has crucial policy implications concerning adaptation and adjustment within and among specific job markets.

Though many are concerned, few can agree on the likely nature, direction and magnitude of the technological impact. Pessimists maintain that we are caught up in a new wave of technological change that is historically unprecedented in its rapidity and its impact. They see a frightening vision of displaced workers and deskilled and dehumanized jobs.

Optimists draw upon the lessons of history to argue that compared to such innovations as steam, electricity, and the internal combustion engine, there is nothing awesome about the recent wave of innovations. They maintain that generally, in the past, the extra output created by new technologies has required enough labour to offset job losses. Adjustments have been necessary, but technology-induced unemployment has not been massive, pervasive or lasting.

Clearly, there are important elements of truth in both of these viewpoints.

Jobs are both created and destroyed by new technologies, and assessment of the overall net effect is extremely difficult. What is certain, however, is that the pace of technological advance in the coming years will not be uniform across the sectors and regions of Canada. Differences in market environment, in the design of organizations, and in institutional settings will determine the ease and rapidity with which the adjustment process takes place. In some areas there will be displacement of workers; in others there will be shortages of special

Table 1: Percentage of Establishments Reporting Organizational Innovations

	%
Renumeration Innovations	29
Profit Sharing	21
Productivity Gain-Sharing	7
Pay-for-Knowledge	5
Work Organization Innovations	31
Job Sharing	7
Job Enlargement/ Rotation/Enrichment	18
Semi-Autonomous Work Groups	9
Quality Circles	10
Joint Decision-Making	35
Labour-Management Committees	26
Other Joint Problem-Solving	17

Source: *Working with Technology*, Economic Council of Canada, 1986.

skills. In short, change brings disruption and imbalance, as well as growth and opportunity. Thus the new technologies pose a double challenge to policy makers: first, to realize efficiently their potential, and second, to distribute equitably their benefits and their costs.

For such reasons the labour market consequences of technological change are clearly important. It is disturbing, therefore, that while these have received close analytical attention in the United States and Europe, there has been a dearth of systematic,

comprehensive, empirical work on this subject in Canada. The deficiency is redressed by the recent publication of the findings of the Economic Council of Canada's LABTECHS project. An overview of the research and principal conclusions may be found in the short consensus statement entitled **Making Technology Work** and in the more detailed companion report, **Innovation and Jobs in Canada**.

Unprecedented in Canada in terms of scale and scope, the findings relate to all industries, regions and occupations of the country, a variety of new technologies, and the interrelationships among a variety of labour market impacts and related policy issues. Large scale modelling exercises have been used to examine the performance of Canada's "high-tech" sector, to look at the role of new technologies in shifting the structure of jobs across industries and occupations, and to look ahead to labour market prospects in the 1990s.

A wide range of issues is covered by the research. It documents, for example, the spectacular growth rates of such high-tech occupations as

programmer, systems analyst, and computer specialist, as well as the threat to machining operations posed by computerization. And it examines not only the numbers of jobs, but also their quality. The results show little evidence of widespread or massive skill erosion. The Council warns, however, that underneath the aggregate figures there is a lot of job "turbulence" and that, in any case, Canada has barely begun to feel the full impact of rapid innovation.

The special difficulties faced by young people and older workers in a period of rapid skill obsolescence are treated in the study, as are the prospects for women. The findings point to problems in the quality of the emerging job structure for women; for example, female employment in Canada's high-tech sector continues to reflect the traditional heavy concentration in clerical positions and, in addition, new technologies appear to facilitate the disturbing rise in part-time employment.

Of particular interest to readers of FOCUS is that the Council places special emphasis on the interrelationship between technological and

organizational change and forcefully urges Canadians to pay attention to the human side of the change equation: "Success depends as much on innovation in organization and the development of human resources as it does on technical expertise." But how commonplace are organizational innovations in Canadian industry? Recent information comes from the Council's **Working with Technology** survey of a thousand establishments.

Overall, some 65% of the respondents reported some form of organizational innovation in the period 1980-85. As the accompanying chart (Table 1) shows, three main forms of organizational innovation were distinguished: innovations in remuneration, changes in the organization of work, and joint decision-making arrangements. Most common are decision-making arrangements. Nearly 30% of the respondents, for example, reported joint labour-management committees. There is evidence, however, that these committees have not been used extensively in the process of planning that precedes the introduction of new technologies. While management (overwhelmingly) and even consult-

Table 2: Economic Council's Case Studies on Technological Change

Industry	Province	Technology	Features
Aircraft engine manufacturing	Nova Scotia	• Computer-integrated manufacturing (CIM)	• Sociotechnical planning • Semi-autonomous work group • Pay-for-knowledge
Automobile engine manufacturing	Ontario	• Robots • Statistical process control (SPC) • Just-in-time inventory (JIT)	• Training
Computer services	Alberta	• Computer-assisted learning (CAL) • Artificial intelligence (AI) • Office automation	• High-tech based growth • Futurist innovations
Electrical and electronic assembly	Ontario	• Robots • Statistical process control (SPC) • Just-in-time inventory (JIT)	• Productivity gain-sharing
Federal government	Quebec	• Office automation	• Relocation • Retraining
Federal government	Ontario	• Office automation	• Semi-autonomous work group • Retraining
Metal-container manufacturing	Ontario	• Office automation	• Union-management • Retraining
Pulp and paper	New Brunswick	• Product automation	• Retraining • Planning
Rehabilitation	British Columbia	• Various	• Training disabled workers
Various manufacturing	Quebec	• Various	• Sources of failure

From G. Betcherman and K. Newton, **A Casebook on Technological and Organizational Change**, Economic Council of Canada.

ants and vendors were prominently represented in the planning process, the involvement of worker groups and labour-management committees was less frequently reported.

Despite the attention directed toward work organization innovations in recent years, the results suggest that most Canadian establishments continue to organize production according to relatively traditional practices. Schemes to redesign jobs through enlargement, rotation, and enrichment were practised by fewer than one-quarter of the survey respondents. There is evidence of innovative compensation arrangements in the form of profit-sharing, gain-sharing, or pay-for-knowledge but, again, these appear to have been implemented by a minority of firms in this country.

The Council's survey results and research for *A Casebook on Technological and Organizational Change* (see Table 2) confirm that changes in work arrangements — job design, reporting structures, decision-making processes and the like — commonly go hand in hand with the introduction of new technological processes and have enormous consequences for the future of work. For example, there is evidence to suggest that to exploit the full potential of the new technologies, many Canadian organizations will have to become less rigidly hierarchical and embrace policies and procedures to promote interdependence, mutual problem-solving and participative decision-making among the principal stakeholders. In the process, the roles and functions of all members of the organization must be analysed, tasks recombined, jobs redesigned, and skills and knowledge explicitly rewarded. In the final analysis, the most innovative changes a firm introduces may be embodied not in new machinery and equipment but in the imaginative blending of technological objectives with the human needs for financial, physical and psychological fulfillment. In this way, motivation and commitment translate into organizational effectiveness.

In its conclusions the Council places considerable emphasis on organizational innovation and explicitly identifies the following key ingredients:

- pre-planning of both the social and technical aspects of innovation;
- participation by all those who are involved in, and affected by, the innovation process;
- development of more collaborative and flexible work designs and methods;
- commitment to the existing work force;
- retraining and continuing skill development; and
- management training that imparts an understanding of the organizational and human resource consequences of technological developments.

The message is clear, yet the issue of organizational renewal seems not to attract the same attention as technological advance, either in the popular press or in the public policy debate. It is hoped that the Council's strong emphasis on the critical interrelationships between technological and organizational innovation will help redress this imbalance.

About the author

Dr. Keith Newton is Senior Research Director of the Economic Council of Canada's Labour Market and Technological Change (LABTECHS) project. Dr. Newton has presented various aspects of the research to the East German Academy of Science, the ILO, the OECD, the U.S. National Academy of Science and, most recently, Manitoba's Innovation Workplace Centre.

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Women and Technology (1):

An Interview with Ursula Franklin



Peter Janecek

Professor Ursula Franklin

Focus: Could you define the meaning of technology?

Franklin: Technology is a very big word that in many ways encompasses very divergent things. Of technology as I see it, there are two classes. One is work-related technology, things designed to change work as an activity. The other part of technology is control-related. It's not there to make the work easier but is there to control both the work and the workers. Often the work-related technologies change the workplace so that they lead to a deskilling — the devices take on the skilled work and the people take on the unskilled work.

A work-related technology such as the word processor makes it easy to change something, therefore often making the typist less careful and less skillful, but also making authors less likely to craft their words as carefully. So, it is not only the worker who may lose skills, it is also the person who designed the work who becomes much less disciplined and less able to provide prose that is good and need not be revised.

Control technology is imposed on people, not because the work is made faster or better or more efficient or more creative. To the contrary, the work is often chopped up so that side

functions of control — and that is not only people control but inventory control — can be fulfilled by work that is not necessarily designed for it. An example is the electronic checkout which then becomes inventory control which in turn becomes helpful in purchasing and consumer research. This work is probably carried out by a poorly paid cashier. Fairly major job functions are fulfilled on the side and often on the cheap by people who are there and paid to ring through your bread and herring.

It is important to look at the division of the work process by technologies that allow monitoring of a variety of side issues, particularly as one looks at the labour picture and jobs disappearing, and also at jobs done that may not ever need to be done such as personnel control — monitoring how fast somebody works. You can monitor time or any quantifiable parameter, but usually the value to a company is expressed in things that you can't monitor. And just because it is easy to monitor speed it's very tempting to say the greatest value is speed when in fact there are many situations where speed is the last thing you want.

One of the things that one has to be very clear about is that the "valuable" parts of the technology, the things we like about the electronic typewriter or the word processor, can be de-coupled from the things we don't like. Much more information about how the users feel and what their rightful requirements are has to go into the very early stages of the development of the technology. Specific technologies need not work the way they do. Economic, political and cultural forces in the environment determine the choices that are made.

If you look at the Summer, 1984 issue of **Canadian Woman Studies** on women, science and technology you will find a piece on the history of the typing keyboard by Elaine Bernard who has written extensively about automation. She points out that the arrangement of the keyboard on the normal typewriter was not developed for convenience or speed in typing.

When the first mechanical typewriters were developed by Remington Rand the keys jammed because the people could type faster than the mechanism would allow, so Remington commissioned a scientific study to design the original levers so that the most used keys would be as far apart as possible. This produced the present day keyboard to which the typist had to conform because of the old mechanical requirements. The original problem of jamming the keys was eliminated, but we are still stuck with that keyboard. Although the Dvorak keyboard (about 25% faster and easier) has been designed, the fact that everyone was trained on the other, not only made it impossible to go back or forward to a keyboard that would be much better for the operator, but transferred that outdated keyboard arrangement to computers and word processors.

Once a particular technical arrangement has taken shape, it's very difficult to dislodge it. There's little point in being concerned with a technology that is established and sold. By then there are very strong forces that need to recoup the investment and it's very hard to change. On the other hand, the profit from typewriters that are properly designed isn't any less than the profit from typewriters that are improperly designed. The resistance to change is least at those points at which choices can be made without prejudice to the final financial and corporate outcome.

To address the real concerns about the human use of technology and to identify the processes to which one needs to say no, one has to go three steps back — to the planning stage. One of the real needs for people who use technology is to get in on the systems design stage. Whoever is concerned about the impact of technology needs to project this concern onto the design level.

Focus: When the subject of women and technology comes up, I tend to think in terms of women — and people generally — being on the receiving end of technology, making the best of an irreducible given. But if

we focus on the design stage, we can talk about how women can change technology.

Franklin: I think it's very important to look at this subject from a feminist perspective. Generally technology has been designed to work from the top down, and in a very controlled structure, because it has been designed to cement the hierarchical system. If you want to design technology differently without necessarily knowing what the final application will be, you have to design it in such a way that it cannot fit into certain controlled systems.

In designing computers you can make certain information incompatible with certain gatherings. It is often as important or more important to design technology which will not allow

Women, and users' groups generally — those at the receiving end both as users and as subjects — are really the guardians of that technology, trying to ensure that it is used only for legitimate purposes.



Technology is generally designed to work from the top down, because it has been designed to cement the hierarchical system.

particular things to be done. For example data banks ought to be designed so that they are not generally accessible. The means by which the military makes information spy-proof or less commonly accessible is what citizens can ask for, for the protection of their own personal information. It has, through political will, to be done so that the system doesn't allow misuse. People will always misuse systems, and so it is at the design stage that systems ought to make it both very difficult to access data and very transparent when data have been accessed.

I want to come back to my remark about technology being used to cement hierarchy. It is because the system is designed from the top down that the protection of those who have entered data or about whom data are entered is very rarely foremost in the mind of the designer. That is why women, and users' groups generally — those at the receiving end both as users and as subjects — are really the guardians of that technology, trying to ensure that it is used only for legitimate purposes. When we get into the subject of AIDS and compulsory testing, the question of data banks, and confidentiality of information will come forward and I hope it will be dealt with as an example in a generic sense of how to use and not use information technology. That one doesn't fight it out on the level of AIDS but on the level of civil rights.

I think it's quite wrong to think that technology is value free. Technology is value laden and the opportunity of using technology in a different context is at the design stage.

Focus: Are there some places where technology is being designed along much more humanistic, egalitarian principles?

Franklin: Yes. Margaret Benston from Simon Fraser has worked with some of the feminist unions on the automation of the workplace in the Vancouver area on the basis of the workers designing the technology. There's a place called Women's Skills where clerical workers are taught the

skills both to cope with technology and also to look at the design, to spot those junctions where technology begins to be misused or used in a manner that is contrary to the well-being of workers.

We are stuck with certain technologies because we don't question enough. Mistakes are bound to occur, and when that happens we have to realize that people must have priority over technology. I've always been a very strong opponent of nuclear energy because it's a harebrained way of producing domestic electricity. It's an afterthought, an attempt to redeem an unredeemable military technology. It was never designed to be a source of electricity. On the other hand there is a great deal of knowledge of this field in Canada and an enormous amount of public investment. It seems that for Canada the way to go is to specialize in dismantling nuclear technology. Why not take that knowledge and apply it to the safe disposal of superannuated reactors? There is enough Canadian knowledge that one could build teams that would go around the world dismantling reactors, thus redeeming some of the knowledge and the investment.

There's a place called Women's Skills where clerical workers are taught the skills both to cope with technology and also to look at the design, to spot those junctions where technology begins to be misused. . .

But one has to admit that not all technological developments turn out to be fruitful. We have technologies that we can't afford and that constantly give us trouble. Just as scientists learn more from an experiment that does not go the way they thought it would, the public learns more about how to do things later when we are aware that sometimes well designed and well-intentioned enterprises do not achieve what it was thought they could achieve. Certain technologies will not turn out as predicted, and both



the public and the corporate world must learn to accept this not as failure, but as normal. That sort of feedback we need in the technological assessment. It is at this point that lessons need to be learned.

Another issue which people interested in the human aspect of technical developments have to look at is the question of scale. It's very often the large-scale things that bring the problems, but there is a sacred cow called "economy of scale." It makes people propose big things because the sum of small things looks much more expensive. You build one huge chemical plant rather than five small ones side by side. In fact, in many cases it would make more sense to build the five small ones. The larger the investment and the longer the feedback loop, the more difficult it becomes to change course. The big developments which only start functioning ten years later are difficult because the world changes so much in ten years. Any good technological development must include feedback loops that come in early, i.e. that are short.

Focus: If the right kind of public relations and public education campaigns can go with all we have learned from failures or problems with technology then what we should come out with in the end is an agreement that we need to keep people in control because of the unpredictability of the environment, the need for flexibility in the face of constant change.

If a misapplied technology produces gains for the corporate user and costs for the community, even the knowledge that there are costs will not prevent the misuse of that technology...

Franklin: I'm not quite so optimistic because there is another component. That is the issue raised by what economists call externality of costs. If a misapplied technology produces gains for the corporate user and costs for the community, even the knowledge that there are costs will not prevent the misuse of that technology, because the costs are borne by somebody else.

Focus: Unless there is a system in place that requires the corporate user to share the social costs.

Franklin: But **share** is not good enough. It has to be **bear** and the bearing has to be not afterwards when the corporation can be bankrupt or in Bermuda. The **bear** is at the beginning. There has to be a really heavy deposit, financially, because moral deposits go bankrupt before the financial deposit. It is necessary to make the initiator responsible for, as well as aware of, the magnitude of the possible loss. Nuclear liability insurance is a good example. As long as the nuclear industry is not responsible for the damage it may do, there's no point in even talking about the proper use of technology. In the end it's money. You can't move into a house without making a downpayment. Why should people be able to move into our environment, or our workplaces, without making a downpayment?

Focus: Can you talk specifically about the impact of technology on women?

Franklin: The effect of technology on women can be detrimental on a number of levels. First of all, because women are on the underside of history — a position they share with immigrants, with older people, and so on — they are the lower paid workers and

the first to be displaced by the introduction of technology. Or, in the second place, if they are not actually displaced, they have to acquire new skills that often negate their inherent women's skill. They have to fit into a machine pattern, their experience becomes a liability not a strength, they can't any longer look up and do what's sensible. So the skills they develop are very often alien and do not make use of the very eminent skills most women have.

I think, in fact, that almost all technology is anti-people. The underclass, in particular women, have always survived by relying on each other, and they get their strength not from power, but from people. Women learn from each other, and are far freer than men in sharing their knowledge and feelings.

Women suffer because as individuals they may have to work against the grain of what they could be. As a result, the very contribution that they could make is ridiculed, denied, and often prevented.

But technology intrinsically organizes so that things are predictable, and for that reason it cuts out the very strength that women have — their experience, their willingness to take other experiences and incorporate them. The very best that women have, and the best they have to give to the community, is in fact denied and destroyed by their becoming machine keepers. Technology does not allow women to develop skills such as listening, mediating, changing things, coping. Technology is totally anti-coping. It's prescriptive. You cannot do something different, you can't mother, you can't cope, which is how all the underside of history survives, and how women have survived.

Finally, even if you have women at the design and management levels, the set-up of technology imposes on them not only values that are quite questionable for them, but also human relations that they often find painful. Women suffer because as individuals

they may have to work against the grain of what they could be. As a result, the very contribution that they could make is ridiculed, denied, and often prevented. In the end, everyone suffers because that is the contribution that is needed.

The only way out that I see now taking place is groups of women working together and organizing their own work. I see some women working in a group as consulting engineers. Women may have to get together, lay down the way in which they wish to work, acquire the technology that they need for the job, and get out of the structure of a corporate arrangement that they find alien. I see a solution only in something that women design from the bottom up, and which they execute themselves. Again, not all these experiments will be fruitful, and if I were thirty years younger I would not go into a male outfit, but rather I would organize a women's cooperative or collective.

Focus: Do you feel optimistic about the technological society that lies ahead?

Franklin: No. But I do feel optimistic about the resilience of people. People have survived a lot of nonsense. I am concerned about the military use of technology, and that doesn't just mean externally. People can be occupied by their own governments. I'm very concerned about what I see as a rising fascism.

Ursula Franklin came to Toronto from Berlin in 1949. She spent 15 years at the Ontario Research Foundation before becoming the first woman on the faculty of the University of Toronto's Department of Metallurgy and Materials Science, where she still teaches.

Her interests include research policy, the appropriate use of science and technology, and women in science. Professor Franklin has long been active in movements that promote peace, international understanding and the equality of women. In 1982 she was made an Officer of the Order of Canada.

Women and Technology (2):

A Panel Discussion

Eleanor Dudar: When we talk about technology do we share a common understanding? We should have some understanding of how narrowly or broadly each of us is thinking when we speak about technology.

Hazel Kerwood: I think that is the problem — that it is a big subject and you can't really say that technology is a single thing. I see several different levels of technology; one is device technology and one is systems technology where you link all the devices. It can also be broken down along the lines of hardware versus software. So I see lots of sub-categories.

Carol Phillips: When I talk about technology and changing technology, what I usually mean is that it's something that has a dramatic effect on the way workers perform their work. Not only has the device that they are using changed, but it changes their relationship to the total work process.

Eleanor: So it does have very broad implications.

Sue Griggs: That's interesting, because I think if you had asked me

just to define technology I would have done it very narrowly. I use a different term — sociotechnical systems — to define the bigger picture, and to me that's the real issue. Maybe tools is a better word if we're using the term in its narrowest sense.

Eleanor: Can we go on to talk about how technology is affecting the workplace and then discuss whether it is affecting women differently from men? Are there some general things we could say about how the workplace of today is dramatically different?

Lois Rylott: Women who have dropped out of the secretarial

10 education to enter a factory and maybe a business course for women entering the office. Those requirements have increased a lot. You can't get into a factory now without Grade 12 or even 13. Whether they're a legitimate reflection of the requirements needed for the actual job or not, is debatable; however, employers are saying that to get the skills required to operate new technologies they need people with higher basic education.

And another thing — workplaces today are cleaner, and not because of the people but because of the expenditure on capital. Word processors, computers and video display terminals need a cleaner environment to be able to operate. Many workplaces that have traditionally been male-dominated because management said women didn't want to get dirty, didn't want to lift, are being changed dramatically by new technology. The workplace is now cleaner, the work lighter, and management is more open to bringing women into those traditionally male workplaces. Though perhaps not always for the right reasons, more women are being hired.

Sue: I think on the whole the organization of today's workplace isolates workers — it tends to be just one person and the machine. I'm thinking about rows and rows of desks in places like an insurance office with you and the machine interacting. I don't think that's a positive thing. You can change that, but I think currently that's usually what happens when technology is introduced.

Carol: There's a way in which office work is becoming more like production work because of new technology. It used to be that the office was for women one place where they could count on a steady shift. Now to justify the greater capital investment in the office, there is pressure to keep the word processors operating longer hours. The move toward shift work has had a drastic effect on women. Women who already had enough problems getting their children to daycare and picking them up on time but who in most traditional female



Carol Phillips

workforce for a year or two would find it difficult getting a job. I've been temping for the past couple of years and in every assignment I've been on they aren't looking for typists; they are looking for word processor operators.

Carol: In the past there would have normally been a requirement of Grade



Hazel Kerwood

Peter Janecek

jobs didn't have the problem of shifts, now have to deal with that as well.

Eleanor: It sounds as if, on the one hand, some jobs that weren't available to women before are available now as a direct result of the changes made possible by new technology. On the other hand, lower skilled and lower paying jobs traditionally done by women are being further automated and work practices are changing considerably.

Carol: Technology as it is being implemented also tends to create a real age split in workplaces between the older workers who have all their life skills and the job skills they've become proud of, and the younger workers who come into a work environment with a lot of recent, immediately applicable school skills. These younger workers are much more comfortable with and accepting of new technology.

Anna Barrett: Studies I've looked at suggest that most older workers are very willing to be trained, that it's not the worker who has a bias against new technology. Rather the people who are in charge of deciding who will get training tend to think that older workers' experience isn't transferable.

Carol: I think that's a very valid point. When the CAD/CAM machines come in, I've seen management give them to the young engineers automatically and not want to waste their time with the older engineers because they are only going to be around for 10 years or so.

Sue: My sense of the new workplace is that everything is becoming so complex, with technologies providing instant information and change happening so rapidly, that I think often workers are overwhelmed. At the same time, first line supervisors are being asked to make big decisions that they've never been asked to make before. And now this decision-making power is going even lower. Certainly in the financial services industry, important decisions are made by people — usually women — working on the machines. They aren't

necessarily being paid any more even though they may be given more responsibility and more autonomy. It's a mixed blessing.

Carol: I want to mention another kind of troubling change made possible by new technology. In corporations that have head offices somewhere else there is a doing away with accounting services, payroll services and other functions from the branches and concentrating them in the head office. So the layoffs that I've seen in office areas have been in clerical jobs, largely held by women. And those jobs are gone directly as a result of technological change. It's not what we thought before where you had the word processor replacing two or three typists. That isn't where the effect is. It's pulling the work back into a head office because you can put all that information into one centre.



Sue Griggs

Sue: I've also seen the opposite trend — even though it may also cost lots of jobs — where the work goes out to the branches and they try to decentralize it. Therefore they will lose jobs at head office rather than at the other end. It will probably create new jobs at the other end but not more jobs in total.

Carol: The other thing I've also seen happening is the sub-contracting of jobs that used to be in a unionized office work situation. Because you can link up the systems now, the

paycheques are made at a place such as ADT services which is non-union and lower paid. The better paying jobs are lost because the technology makes it possible to subcontract the work out to cheaper paying services.

Sue: On the positive side, I've also seen technology used in a way that was very exciting. In the project that I worked on we were able to engage all the admin staff — clerical, secretarial and word processors — in looking at their jobs and getting them and their managers involved in reorganizing the way they do their work.



Anna Barrett

Peter Janecek

Eleanor: Does this depend on a certain kind of cultural awareness on the part of managers and workers?

Sue: Sometimes you need that but other times there's a crisis. When you bring in new technology often things fall apart. Sometimes that's the crisis that initiates change. It's not always coming from an enlightened management or union initiative.

Workers are much more easily monitored now because they're tied to the machine. They've become an extension of whatever machine they're working.

Carol: I'd like to go back to what was mentioned earlier about the greater isolation of the worker. Not only can technology be used to isolate, but workers are much more easily monitored now because they're tied to the machine. They've become an extension of whatever machine they're working. Where I first started to see it happen was with the old key punch machines. The operators had to sign on and sign off and then the printout went to the managers and they saw how many strokes were entered. I used to see people postponing a trip to the washroom until their



Peter Janecek

Eleanor Dudar

break because they were so intimidated that their strokes might be down from one day to another. That's a big change — the ability to monitor makes it more like the old production line jobs because you can see the output much more readily now.

Eleanor: Do any of us know of cases where the ability to monitor *hasn't* been used? The technology itself doesn't say "turn me into a monitor." That's a choice that is made somewhere in the organization.

Carol: I have to say that it's almost irresistible for most managers to use it because of the way management is trained. If the information is there, they are going to make use of it and in most cases they are going to use it in a very negative way. Management is trained to get that productivity out.

Eleanor: How do you reorganize work so that you can expose the limitations of that way of thinking?

Hazel: I think it is necessary to go back to the existing work culture. When you have a culture that evaluates managers based on the variance from budget, it forces managers to think of costs, productivity and efficiency and that is why they would want to make use of this monitoring information. If you start to evaluate management in terms of profitability rather than just costs, they'd have to look at both sides of the equation. They'd have to start thinking about how you could increase the revenue side as well as decrease the cost, which would create more of a tendency for them to look at the workforce as a resource rather than simply as a labour cost. If you are going to implement technology that can allow the organization to be more



Peter Janecek

Lois Rylott

flexible, to be more competitive, then it doesn't make sense to focus just on costs anymore.

In manufacturing, management used to be based on a standardized product and increased production to get your learning curve down so that you could decrease your costs. Now the market

The change in the market has created a need for flexibility in the technology. In order to use that flexibility, you need to have a flexible workforce, and that means changing the whole organization.

is changing so that people don't necessarily want everything the same; you have to introduce flexibility into the product. That requires flexible technology and it also requires a flexible workforce to be able to implement those changes. So the change in the market has created a need for flexibility in the technology. In order to use that flexibility you need to have a flexible workforce and that means changing the whole organization. You have to change its culture, the way people are evaluated, the way you do your accounting. Technology to be used to its fullest requires the whole organization to change.

Carol: I have often said to industrial relations people, "Obviously this manager can't be very useful to you because he has many grievances against him and there's constant turmoil and tension in that department." And they will defend that manager because they think that the manager, by being tough, is doing a good job for the corporation. Being tough is seen as defending the corporation's best interest. It's almost as if the manager who very quietly and very efficiently has for years managed a department where no grievances have arisen must be too soft and to a certain extent less valuable in the corporation's eyes. It has to do with what you were talking about — the culture. Most work cultures are still defined very rigidly in terms of "them" and "us." You're either on one side or the other, and there's not much middle ground.

Hazel: Technology can become an impetus for changing an organization's culture. If for instance you implement this flexible technology and you're not getting the most out of

it because you still have a very rigid organization, then a way has to be found so that you get your money's worth out of the technology — that can stimulate organizational change. It's sort of a backwards way of getting there.

Sue: My philosophy is to use any intervention you can to move an organization in the direction of a Quality of Working Life philosophy. I agree that there is a need for flexibility. Ironically, as the pressure of being able to respond quickly to the marketplace becomes greater, instead of giving the workers more say, management becomes tighter in terms of controls, rigidity — just the opposite of what is needed.

Management continues not to involve workers' representatives in major decisions and radical departures from normal work methods.

Carol: What amazes me time and time again is that I can continue to say to management, "Why didn't you involve the bargaining committee right at the beginning? You knew you were going to make a capital expenditure that you had approved. You knew a year ago that you were starting to make changes in the workplace. The bargaining committee finds out after you've made all your plans how it's going to be implemented and then the problems start. Suddenly there's a radical departure from the work methods that people are used to, and then you come to the union and say, help us fix it." And the union says, "Forget it." You can't blame the union because management was really obligated right at the beginning. But they continue to resist the resource of the bargaining committee who knows what the reaction of the workforce to change is going to be. Management continues not to involve workers' representatives in major decisions and radical departures from normal work methods.

Eleanor: It comes back to the organizational mind set. You talk about it in terms of an "us/them" mentality and the attendant tendency to devalue the workers' experience.

Carol: I would say that there would be even less inclination to ask women. If a male worker's opinion is going to be undervalued I think it's fairly safe to make the assumption that a female worker's opinion is going to be even less valued. Because the work they are doing is itself undervalued, therefore their input into change involving that work is undervalued. That is even worse when we are thinking about possible changes in women's role in the workplace.

When they talk to women about what the training requirements may be, I think very often there's an assumption that women aren't going to be interested in taking the time to train or retrain, and therefore this is an expendable group that doesn't have that ongoing attachment to the workforce anyway. No matter how far we think we've come, that belief in the expendability of women as workers, far more than of men, still exists.

Eleanor: When you were describing work situations I suddenly realized that you're describing a work culture that is greatly influenced by traditional "male" values — the reliance on rules, the combativeness, the rigidity when the pressure is on.

It is evident to me that everybody is being affected by new technology, men often as dramatically as women. In thinking about its impact, I find it difficult to focus exclusively on women. It should be said that some women clearly gain from it. But the more general women's lot is also the lot of other groups — older workers, immigrant workers — who may bear the costs and not reap any of the advantages of new technology. How do we keep the focus on the needs of people as we respond to these changes? We can't just go in and say, "We need a feminist work culture."

Sue: I always try and work from a feminist perspective. Individual effort is not enough. We need educational reform from the bottom up and the top down.

Hazel: In the MBA program I am in, the male attitude is changing. I've been in the programme five years, doing it part-time. I've seen quite a difference from when I started. Today a higher percentage of men participate in quality of working life courses. So there is a gradual change.

Carol: If you take a look at the economic environment we are very much going toward a survival-of-the-fittest situation which I think is going to increase the competitiveness. It's macho economics that we are dealing with. I'm not all that optimistic for the near future.

Sue: If we could only get people to realize that survival of the fittest is not necessarily that bad. To do that — to survive — you should bring in everyone involved — employees, unions — to use all your resources, which is far more beneficial than so much current management thinking. It's just common sense. If productivity and the bottom line are important, I can live with that. But as Hazel said, we need to look at both sides, at revenues as well as costs. We would get better results by using workers' ideas, changing their jobs and their environments; it helps them, it also helps the company.

We ought to be able to say to the company that profitability has increased as a result of the introduction of technological changes; however, it has had the following social impacts, so you owe us certain compensations.

There has to be a commitment from the company, the union or government — probably all of them — that people should not lose their jobs because of new technology. They should be



Ontario Ministry of Industry, Trade and Technology

Women must be given equal access to the training necessary to operate the new technology.

retrained to develop the skills needed to operate the new machines.

Carol: In the capitalist system where free enterprise is god and no regulations exist on how businesses operate, there is no forum where we can talk about these things. We ought to be able to say to the company that profitability has increased as a result of the introduction of technological changes; however, it has had the following social impacts, so you owe us certain compensations. In this system, and especially given current trends, that is really tough.

Eleanor: It sounds like we'll need something like legislation, which is not likely in the present climate, certainly not until we have dealt with the issue of free trade. Some European countries have legislation that provides a legal framework within which employers have to come to terms with some of these issues.

Coming back to our immediate subject, are there changes in the way you see younger women in the workforce responding to technology generally? Traditionally, it's been

said that employers assume that women don't want to work with machines. Obviously being comfortable with technology is going to be crucial to the kinds of future work that women can hope to get.

Carol: I think there are very small changes. I would love to see more encouragement given to young women to take courses which break down the traditional roles they so often end up playing. Some very real faults still exist in the school system. Has anyone seen the study on the number of books in the Ontario school system that are said to be sexually biased? — all of them. There was not one that did not traditionalize women.

It's interesting to see the number of women who in their 20s go into traditional types of courses and once out in the workplace realize they must retrain so that they don't become a lost generation. When Spar Aerospace and deHavilland Aircraft started hiring women, a lot of their new recruits were women in trades courses who had previously done traditional women's work. I think those women will become role models.

Anna: Their influence in the workplace should be substantial because they are also the women who will be making demands around the work and family issues. Presumably they will be required to work shifts and somehow balance the responsibilities of family life.

Carol: And they humanize the workplace. Men act in an all-male workplace as they wouldn't act on the street.

Eleanor: What kind of vision do people have of a technological society? Do you feel hopeful about the future?

People need to be involved in, and have some control over, their work lives. That's a style and a philosophy which ought to be central to the whole issue of technology and women.

Sue: Oh yes. Basically, I'm an optimist. The groundswell approach, working from the bottom up, is one way of making changes. Legislative changes probably won't happen for a while. It's going to take a long time. I had an interesting project with a company in England. They were putting in a new computer system in the pensions area and they were concerned both about their profits and about disgruntled workers. They thought before they put the system in, they should clean up their act. We trained their people. Basically it was very participative, a classic QWL approach. It was exciting because people changed their own jobs. They pulled them all apart and put them back together. By the time the system was installed things ran very smoothly. The work flow had changed a lot but it was the workers themselves who had changed it. People need to be involved in, and have some control over, their work lives. That's a style and a philosophy which ought to be central to the whole issue of technology and women. The question is how?



New technology means more than a new device; it means a change in a worker's relationship to the total work process.

Eleanor: What would you like to see for women in the technological society of the future and how can you imagine us getting there?

Sue: It's bigger than just women and technology. It's women's place in society. It's got to start when kids are born and how they are brought up. It's working with parents and the school system at all levels — from daycare and kindergarten to the university and community college. Other things too — more workplace training to raise awareness, more talking, more articles like this one. What I found for a number of years was that I felt like I was working in isolation. It was when I went back to York and got involved in the QWL field that I realized what I was doing was part of something. If people feel whatever they are doing fits into something bigger, then they have the energy to keep on going. That's what makes me optimistic in what is in some ways a very pessimistic field.

Anna: I think the wheel will inevitably turn out of necessity. As someone said, you're not going to change business unless you make a very convincing business case.

About the panel

Anna Barrett is a consultant at the Ontario QWL Centre.

Eleanor Dudar is editor of QWL FOCUS.

Sue Griggs, former Manager of Organization Development at Manufacturers' Life Insurance Company, is an independent consultant in organization issues.

Hazel Kerwood is an electrical engineer presently completing an M.B.A. and doing research on the impact of new technology on organization design.

Carol Phillips is National Representative of the Canadian Auto Workers, Co-ordinator of the CAW's Women's Programme, and a Vice-President of the Ontario Federation of Labour.

Lois Rylott is the secretary-receptionist at the Ontario QWL Centre.

International Productivity Symposium III

Productivity and Employment:
Challenges for the 1990s

April 10-13, 1988
Washington, D.C., U.S.A.

The critical challenge in the last decade of this century will be the simultaneous creation of an environment which will both stimulate productivity growth and generate sufficient and more rewarding jobs for a changing work force.

This symposium will focus on the exchange of ideas and experiences of private and public organizations in improving organizational and public policy strategies for increased productivity and for enhanced employment opportunities.

Programme topics include:

- Productivity: underlying forces and current status
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The symposium follows the first International Productivity Symposium organized by the Japan Productivity Centre in Tokyo in May 1983, the first EuroJobs Congress held in Paris in September 1984, and the second International Productivity Symposium organized by RKW, the German Productivity Center, in Munich in October 1986.

The registration fee is \$500 (U.S.). A complete programme with the speakers' names is available. To receive the brochure or to reserve space, please write to:

IPS III
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25 Technology Park/Atlanta
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(404) 449-0460

New Technology for the Workplace

by Hazel Kerwood, P. Eng.

As workplace technology becomes more pervasive, the terminology becomes more confusing. This simple outline will help users become more familiar with the Factory and Office of the Future and their component technologies.

Computer Integrated Manufacturing (CIM) uses computing technology to integrate a number of manufacturing technologies to produce a coordinated operation. The technologies most often integrated are those of the engineering and production departments; however, accounting, inventory control and other business planning functions can also be included.

Automated Materials Handling includes traditional materials handling equipment, automated storage and retrieval systems and automated guided vehicle systems.
• Automated materials handling systems can be part of a CIM network or controlled by decentralized software.

Flexible Manufacturing Systems (FMS) are cells of numerically controlled machine tools controlled by a central computer. However, the terminology is often used to include robotics and automated materials handling as well.

• The flexibility created by the reprogrammable nature of the equipment makes customization and an output batch size of one economically viable.
• FMS can be part of a CIM network or controlled by decentralized software.

Computer Assisted Manufacturing (CAM) uses computer-controlled equipment to perform some or all of the manufacturing operations. The equipment ranges from single numerically controlled machines to FMS, often used together with process control devices, automated assembly systems and computer-aided inspection.

• CAM can be controlled by decentralized software, used together with CAD or as part of a CIM network.

Robots are manipulators that can perform many different tasks and are reprogrammable. They can be used for either performing work on an object or for transporting objects from one work station to the next.

• Robots come in many shapes and sizes; however, they can be placed into four general mechanical classifications which describe the coordinates of their work surface: articulated (with one or more rotary joints), cartesian (straight line movement only, although they may have a pivoting wrist joint), cylindrical (a rotating horizontal arm moving on a vertical column) and spherical (rotary and pivotal motion of a retractable arm).

• Robots can be controlled by decentralized software or as part of a CIM network.

New Technology f

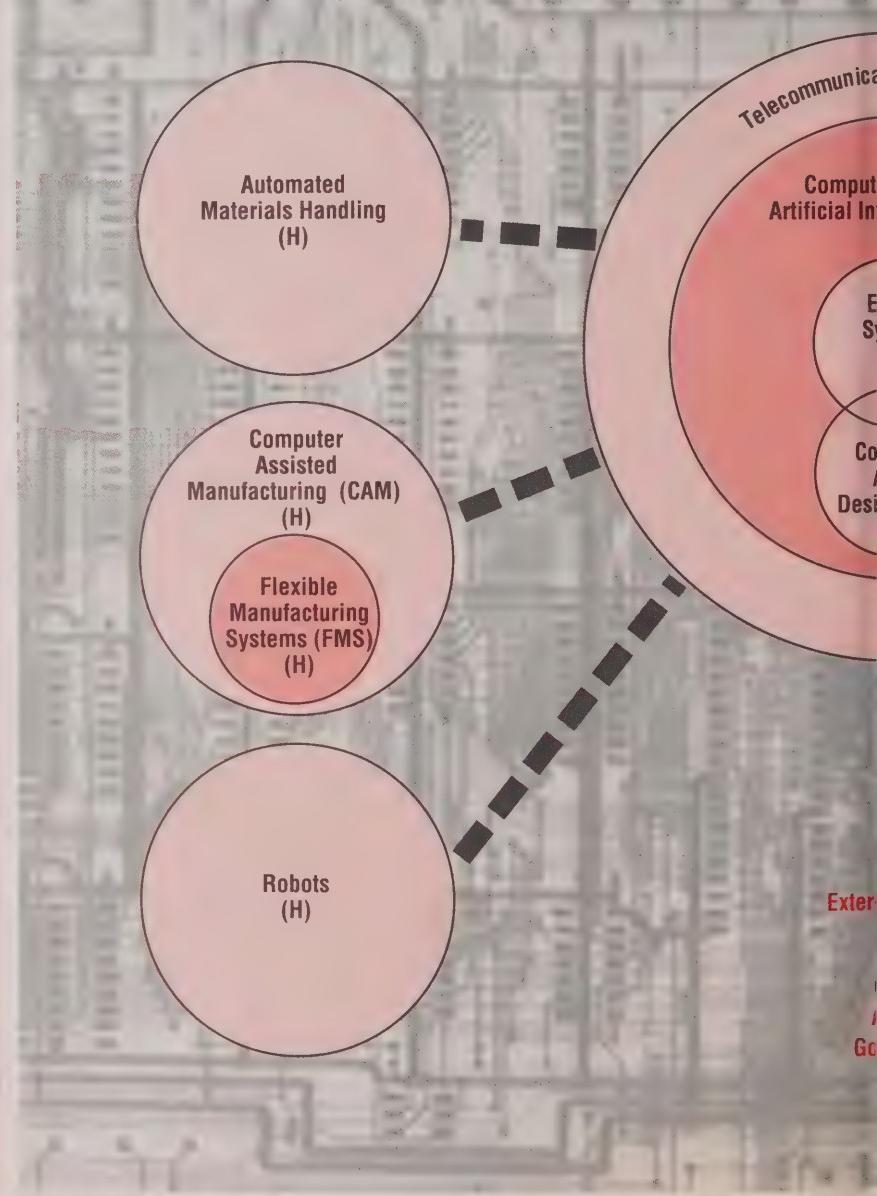
by Hazel K

Computers

- The hardware includes mainframes, mini-computers and personal computers, which can be interconnected in many configurations.
- The software can extend from traditional data processing capabilities to more advanced artificial intelligence applications. The software is no longer only processed by a single central computer; instead, it can also be processed independently by decentralized units connected in a network.

The Factory of the Future

Computer Integrated Manufacturing (CIM) (H&S)



or the Workplace

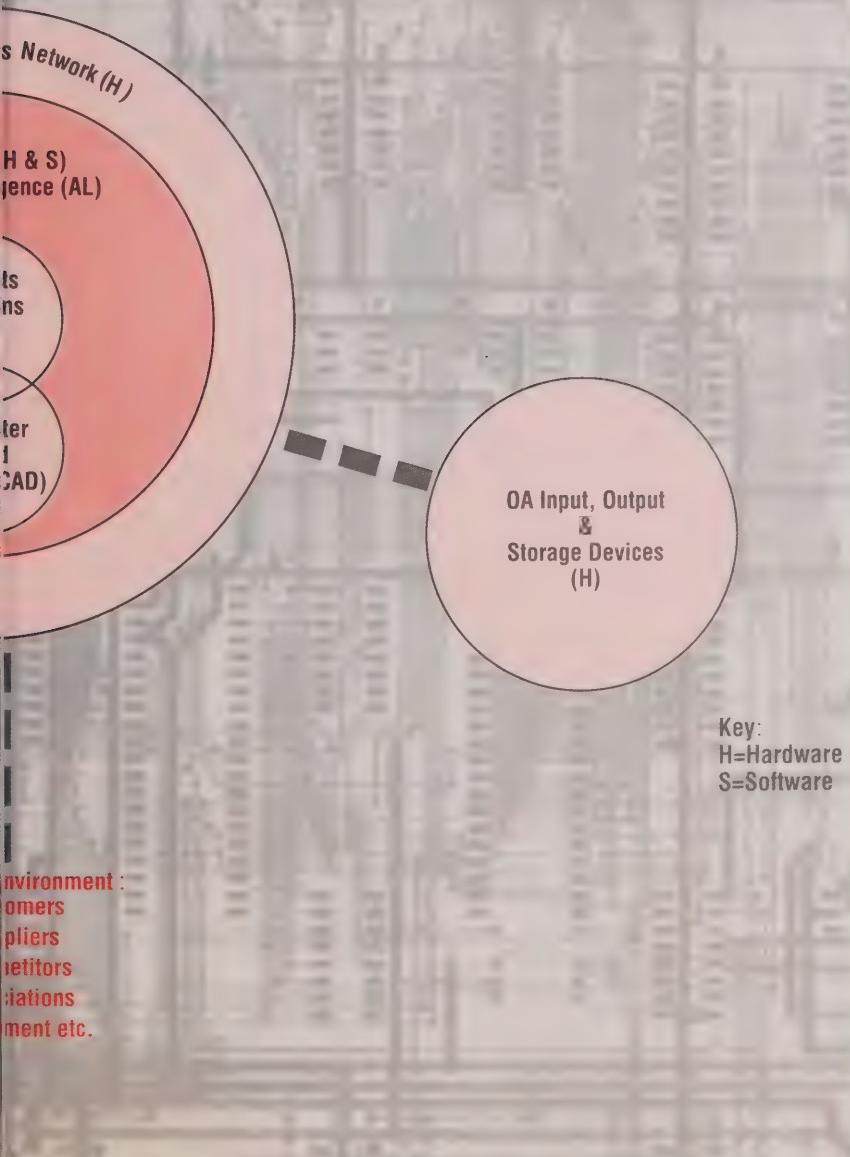
ood, P. Eng.

Telecommunications Network

- The use of fibre optic cables and the migration from analog to digital signals enable the integration of voice, data, text and image media on a single transmission line.
- The telecommunications network links many computers together as well as linking the peripheral devices and equipment to the computer system. Also, when all media can use the voice network, the telecommunications network can electronically connect the organization to its external environment.

The Office of the Future

Office Automation (OA) (H&S)



Office Automation (OA) is a diversified selection of electronic information processing equipment and the process of connecting that equipment into a network.

- The whole is greater than the sum of the parts, for communication and information processing can take place between devices and potentially across media.

Office Automation Input, Output and Storage Devices include scanners, printers, word processors, computer output microfilm (COM), electronic drafting, tape, magnetic disc, optical disc.

Artificial Intelligence (AI) is the field of modelling human intelligence with a machine.

- It is a software umbrella that covers most of the new technologies.
- Applications include, but are not limited to, robotics, natural language processing, computer vision, voice recognition, computer language translation, computer-assisted learning, computer-aided design, computer-integrated manufacturing, expert systems.

Expert Systems are computer programmes which can capture, in memory, specialized knowledge acquired from a human expert then process that knowledge using similar processes as the human expert in order to solve difficult problems.

- Their advance over traditional data processing is in their use of symbolic and often qualitative reasoning.
- Applications include many stages of work flow: prediction, diagnosis, design, planning, alarm analysis, monitoring, simulation, repair, instruction, interpretation and control.
- They are viewed by different groups as either human replacements or human support systems.

Computer Aided Design (CAD) is a software system that assists the engineer to design parts or processes, perform calculations, test and simulate operation, and store 2-dimensional, 3-dimensional or solid images.

- CAD can be used with dedicated specialized terminals or the same hardware as other computer applications.
- If CAD is used as part of a CAD/CAM system, then numerically controlled manufacturing equipment can be programmed electronically from the CAD unit.
- If CAD is connected to peripheral equipment, then microfilm and blueprints can be produced from CAD memory. Or tape, magnetic disc and optical disc can be used for permanent storage of information.

Hazel Kerwood is an electrical engineer and consultant whose field is the impact of new technology on people and the workplace.

Additional copies may be obtained from:

The Ontario Quality of Working Life Centre
Ontario Ministry of Labour
400 University Avenue,
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Toronto, Ontario, M7A 1T7
Telephone: (416) 965-5958
Telex: 66219730

The Canadian Steel Trade and Employment Congress: A New Model of Company - Union Cooperation

by Eleanor Dudar

Canadian Steelworker National Director Gerard Docquier's proposal back in late 1984 that steel companies and union locals get together to study the possible impacts of the changing trade environment has evolved into a unique joint body with an ambitious agenda.

Building on the co-operative relationship fostered by their joint efforts to prevent the imposition of American quotas on Canadian steel, Docquier approached Stelco president John Allan, and together they won support and some funding from the federal government for a joint forum where critical industry issues could be examined. At two conferences, held in Sault Ste. Marie in May of 1985 and 1986, and in committees in between, the 40 members of the joint body (roughly half companies and half Steelworker locals), originally called the Canadian Steel Trade Conference, have taken a broad look at the Canadian steel industry, analyzing labour adjustment needs, Canadian steel markets, and world trade patterns for steel.

The Canadian Steel Trade and Employment Congress (CSTEC) is now coming of age, taking its place as an important body in the steel industry. Last year, the federal government chose Canada's delegates to the ILO's Iron and Steel Committee from

CSTEC, indicating the recognition and acceptance that it has gained on all sides. In March, 1987 the Congress appointed Judy Barrie, on loan to the Steelworkers from the federal government and instrumental in the continuing development of CSTEC, as its Executive Director and first full-time staff person.

Two joint committees, which grew out of the four original labour-management working groups established at the end of the first conference, have been hard at work developing the CSTEC agenda. Presently, the steel trade committee is putting together an education programme to inform American industry, government and the public at large that Canadian steel is fairly traded. The programme will also stress the similarities between Canadian and American steel industries which face shared North American problems of excess world capacity and competition from cheap, often subsidized, offshore steel.

The second committee, on employment and adjustment, has been negotiating with the federal government regarding ways that the industry itself — labour and management working together — can assume responsibility for planning and directing the labour adjustment process for its own members. Announcement of immediate government funding of the start-up phase of this programme, to be called the Steel Sector Adjustment Project, was made at the third annual meeting of the Congress, held in Hamilton in November, 1987. The government assistance represents the transfer of money that Employment and Immigration would have spent on its own labour adjustment programmes.

One of the few fully functioning cooperative labour-management organizations in the country, CSTEC represents an important experiment in sectoral planning. Joint local committees will determine which services and training are needed at any particular location. In this way, the people directly affected by changes in the industry will have a say in choosing their own futures.



Operator checks graphic display of computer system which integrates all steel-making processes as well as controlling scheduling and quality monitoring.

Dofasco Inc

There is growing interest in this labour-management body. CSTEC has been approached by company and union officials from the forest industry for advice on setting up a similar organization. Federal government officials see it as a far more effective way to grapple with industry problems and formulate solutions than the appointment of yet another task force. And company and union officials have both spoken of the growth of industrial democracy through the process of joint learning, consultation and decision-making.

Canadian Council on Working Life

by Susan Burton

A report on the pilot phase of the Canadian Council on Working Life's **Inventory of Worklife Improvements** has recently been published. The pilot project, which began in British Columbia in March 1986, was designed to test the concept of providing ongoing information on workplace initiatives. The report documents fourteen significant projects undertaken by organizations in the natural resource, manufacturing, communications, construction, and service sectors. The initiatives range through technological change, ergonomics, compensation and benefits, employee assistance, health and safety, and job creation.

If you are considering a project in one of these areas in your own organization you may find it useful to read about what others have done. The report includes the names of contact persons from management and the workforce at each site. Copies of this report are available to CCWL members for \$10 (\$15 for non-members).

The CCWL was founded in 1981, following the international conference "Quality of Working Life and the 80s" held in Toronto. It is an umbrella organization with representation and



support from management, government, academia, consultants and various individuals and interest groups across Canada. The CCWL supports and promotes initiatives to improve both the worklife of people and the effectiveness of work organizations.

The Council has published the first of a series of occasional papers on workplace improvements, Bert Painter's "Developing the Participative Workplace: A Report from Western Canada." The occasional papers will be distributed free of charge to CCWL members, and are available to others for \$5.00.

The annual CCWL membership fee is \$50 for individuals, \$500 for organizations. Receipts are issued for income tax purposes. For further information, please write to:

Canadian Council on Working Life
P.O. Box 567, Station B
Ottawa, Ontario
K1P 5P7

About the Author

Susan Burton was Project Rapporteur of the Inventory, and is currently Associate Director of the Professional Studies Programme in Continuing Education at Simon Fraser University.

A Participatory Approach to Occupational Safety in the Forest Industry of British Columbia

by Bert Painter

A major employer and the largest trade union within the British Columbia forest industry have successfully experimented with a participatory approach to safety in logging and manufacturing operations. The two principles which have guided this initiative are prevention and participation.

"Prevention" has meant *a focus on hazards*, their identification, control or elimination, immediately and at their source. "Participation" has meant *direct involvement of workers* on the job, acting individually and within work groups to identify and control hazards. This has led to an approach where the control of hazards — "safety" — is a shared responsibility.

Participation of workers in this safety initiative has been coordinated and supported in two main ways. First, the joint union-management safety committees have achieved real authority through a shared commitment to make decisions by consensus. They have therefore become more than a recommending body. Secondly, the company and the union have provided *continuous safety education* to develop the leadership of workers and supervisors in both the content (hazard control) and the process (participation) of this safety effort.

This highly integrated, highly participative approach to occupational safety is distinguished from traditional practice in several ways:

- **the focus:** hazard control, as distinct from a focus on either accidents or programmes;
- **the scope:** wide range of work activities, including the planning of work, the design of jobs, and even job-related recreational activities, all of which have been perceived in a new way as potential "hazard factors";
- **the emphasis:** worker participation;
- **the investment:** continuous education in safety;
- **the philosophy:** safety and production go hand-in-hand, and
- **the results:** dramatic reduction in accident severity.

Four years ago, the company's logging operations had the highest injury compensation costs in the forest industry, whereas today their costs rank the lowest among the major forest companies in British Columbia.

Other companies and other unions within British Columbia are now beginning to look at developing their own approach to this combination of worker participation and continuous safety education.

Further information on this experience within British Columbia is available from:

International Woodworkers of America
Canadian Regional Council #1

1285 West Pender Street
Vancouver, B.C.
V6E 4B2
(604) 683-1117
Attention: Verna Ledger
Health and Safety Director

Whonnock Industries Limited
P.O. Box 49114, Four Bentall Centre
3400-1055 Dunsmuir Street
Vancouver, B.C.
V7X 1H7
(604) 681-3221
Attention: Bob Sitter, Vice-President

B.C. Research
3650 Wesbrook Mall
Vancouver, B.C.
V6S 2L2
(604) 224-4331
Attention: Bert Painter

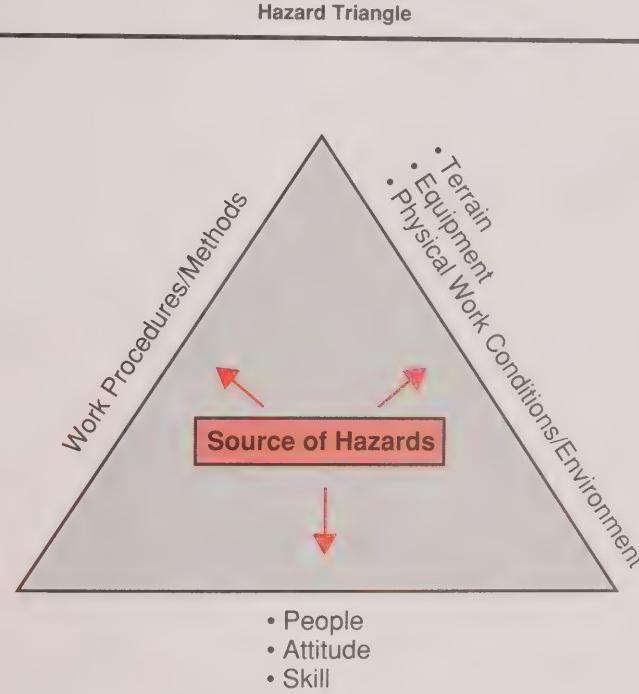
An article on this safety initiative has been published in **Human Factors in Organizational Design and Management**, edited by H. W. Hendrick and O. Brown Jr., Amsterdam: Elsevier Science Publishers (North-Holland), 1986.

About the Author

Bert Painter is a consulting social scientist associated with B.C. Research. His recent videotape on joint union-management projects engaging in innovative worker participation, *The Challenge of Change: A New Deal at Work* (\$100) and the accompanying manual, *Developing the Participative Workplace* (\$35) are now available from:

Derek McGillivray
Ironstar Communications
65 Heward Avenue
Toronto, Ontario M4M 2T5
(416) 466-2522
Telex: 06-218868

Safety programme's key strategy of identifying and controlling hazards immediately and at their source is possible only through direct participation of workers on the job, both as individuals and within work groups. The control of hazards is a shared responsibility: company and union provide continuous safety education which develops people's skills in both hazard control and participation.



Manitoba: The Workplace Innovation Centre

by Eleanor Dudar

In October, 1986 John Roll was appointed the first executive director of The Workplace Innovation Centre, established to help employers and workers deal with the impact of technological change. In the past year, Roll and his staff have organized three major events designed to inform the public about the broad range of social issues raised by new technology. Wallace Clement of Carleton University delivered the inaugural lecture, "Technological Change and Its Effects on Employees."

Clement made an impassioned plea for a greater social commitment to reduce unemployment and to maximize the quality of worklife. He drew on his extensive research into the Manitoba mining industry to document the way in which new technology can be used to eliminate jobs and deskill many of those remaining.

Using the forum as a place to reflect on the choices a society makes, Clement pointed to the contrast represented by Sweden, a highly technically innovative society with a 1986 unemployment rate of 2.6%. There, where the right to a job is seen as a fundamental entitlement, the labour market budget is spent largely (80%) on retraining and worker relocation. As a result, Swedish labour tends to be more accepting of technical innovation and the temporary dislocation it may represent.

Reviewing the state of automation in Canadian manufacturing, Clement found a double-edged weakness: not only does the country lag behind most industrialized nations in implementing automation, but Canada imports most of its high technology. In 1986, the high technology deficit was \$14 billion, which translates into roughly 140,000 jobs, most of them highly skilled.

Clement stressed that technology is not an isolated, separable "thing," but rather the outcome of social forces and relations. Citing Cynthia Cockburn's excellent 1985 study **Machinery of Dominance: Women, Men and Technical Know-How** (London: Pluto Press), Clement also touched upon how new technology has reinforced the gender division of labour whereby women operate the technology while men tend to be in charge of the more creative, skill-intensive jobs of developing, managing and servicing it. Franchisers come under scrutiny because they are quietly becoming major employers (accounting for \$50 billion or 40% of retail trade in 1986), and because their employment practices have a significant effect on workers. Most people working in these situations — often new entrants to the labour market — are locked into dead-end, low-paying, part-time work without the protection that organized labour is able to offer its members.

In his concluding remarks, Clement called for Canada to develop a system of entitlements to decent jobs which would allow people to realize their human potential. In his view this change can only occur through a re-ordering of social power. Industrial democracy, in encouraging workers' involvement not only in decisions affecting the immediate worksite, but also in supplying broader directives for production and investment, is seen as the engine which will propel this major re-ordering.

The Centre, in conjunction with the University of Winnipeg, also sponsored a two-day conference on "New Challenges for Labour and Management." Its emphasis was on the need to work collaboratively in seeking ways of working which will optimize the benefits of new technology. Keynote speakers were Dr. Stephen Hill, London School of Economics, Dr. Larry Hirschhorn, Wharton School of Applied Research, University of Pennsylvania, Reg Basken, National Director, Energy and Chemical Workers' Union, and Kaye Desborough, Consultant, National Federation of Nurses' Union.

In December, 1987, Dr. Keith Newton of the Economic Council of Canada gave a seminar presenting some of the findings of the Labour Market and Technological Change project which he directs (this issue, pp. 16-18). Both the conference and Newton's seminar were followed by panel discussions featuring local leaders from business, labour, health, education and government circles.

Labour-Management "Code of Conduct" Report Available

Over the past eighteen months, a study group of ten senior management and labour officials has been meeting regularly to engage in candid off-the-record debate and exploration aimed at improving relations. Issues included:

- the legitimacy and responsibility of unions in organizing and representing their memberships;
- a desirable code of conduct for collective bargaining;
- job security and dignity in the workplace;
- improved consultation and participative approaches; and
- the relationship between collective agreements.

The process was facilitated by the Niagara Institute staff who have produced a paper which addresses the major issues explored. This paper, "Code of Conduct for Labour-Management Relations: The Search for a Better Way," is available from:

Mr. Harry Kostiuk
Director, Labour Programmes
The Niagara Institute
176 John Street East, P.O. Box 1041
Niagara-on-the-Lake, Ontario
L0S 1J0

Technology Impact Research Fund Programme

Self-Managed Office Automation Project

by Andrew Clement and Ann Zelechow

York University's Self-Managed Office Automation Project was one of only two demonstration projects funded by Labour Canada's Technology Impact Research Fund. Jointly sponsored by the administration and the York University Staff Association, this project was developed in response to concerns raised by secretaries and clerical staff about the impact of the new office technology.

In December, 1984 the first personal computers were introduced at York. In spite of the administration's intention that the implementation be done in a gradual, non-threatening manner, a variety of the problems commonly associated with the introduction of computers arose.

Ann Zelechow, chair of the union's Technology Committee, in collaboration with Andrew Clement, a professor in computer science and mathematics at York's Atkinson College, identified the central underlying problem as a lack of effective staff participation in many of the implementation decisions. They proposed that on an experimental basis support staff be provided with a full range of resources related to their use of personal computers. Their goal was to show that with appropriate assistance, staff could progress toward the self-managed automation of their offices.

While there is growing recognition of the importance of user participation in the design and implementation of computer systems, self-management initiatives are relatively rare in Canada, and found more in industrial settings.

Both a Staff Analysis Group, which would participate in the project, and a

Control Group were identified from among 20 departments in the Faculties of Arts and Fine Arts. The analysis group, composed of project staff and one or two rotating members from each of the four participating departments, met for three hours each week in the project office. The office functioned as a resource centre, offering individual and group workshops on particular topics, access to a computer for practice with software, a lending library of training materials, and phone-in or personal consultations with the full-time project manager.

It soon became apparent that the initial goal of developing worker-centred work analysis and redesign of the automated office could only be pursued after staff had achieved confidence and skill in understanding the

Labour Canada's Technology Impact Research Fund (TIRF) programme, completed in March, 1987, represented the first stage of the federal government's programme to support research concerning the impact of new technology on workers. The TIRF programme has been judged as very successful, both by Labour Canada and by leaders of the labour movement, in helping unions become more conversant with the broad impacts of new technology. As a result, it is being continued as the Technology Impact Programme (TIP) which offers support to research and demonstration projects focussing on more specific areas of concern. From a wide range of TIRF projects, FOCUS has selected four; two studies of the effects of office automation, and two comprehensive studies of the impact of new technology in the manufacturing sector.

For more information and a list of TIRF projects completed and TIP projects underway, contact:

Information Co-ordinator
Labour Outreach
Labour Canada
Ottawa, Ontario K1A 0J2

full capabilities of their computer hardware and software. Results of the Staff Analysis Group work are reported as five case studies which discuss the subject areas tackled: the broad issue of work, documentation, advanced features of Wordperfect, electronic file management, and using Wordperfect as a data base manager.

By the time the project concluded in March, 1987, staff saw a change in their relation to their computers. Three differences were stressed: people were no longer afraid to experiment with their machines; people understood and could use the advanced features of their hardware; and they had come to realize that only by taking time to plan could they take advantage of these advanced features. The results present a strong case for a permanent resource centre where people can continue to experiment and learn. Participants clearly expressed their desire for a centre where they could get help in redesigning their own procedures rather than becoming dependent on an outside expert.

In the words of the report, staff involved in the project have emerged with "the knowledge, analytic capabilities and courage to explore for themselves in what ways this new technology will support them and in what ways it will not." While the goal of self-managed office automation at York is not yet achieved, this comprehensive and well-designed project report documents through the case studies, selected interviews, and the minutes of the 18 Staff Analysis Group meetings, the considerable gains made in empowering these workers, both individually and collectively, to become active participants in deciding how technology should be employed in their work.

The report as a whole, and especially its recommendations regarding the introduction of personal computers into the office and the role of staff, will be of interest to anyone involved in the process of office automation.

Challenging Technology's Myths: A Report on the Impact of Technological Change in Secondary Manufacturing in Metropolitan Toronto

by Susan Meurer, David Sobel and David Wolfe

The Labour Council of Metropolitan Toronto's TIRF-funded study **Challenging Technology's Myths**, attempts to go beyond the fragmentary knowledge supplied by earlier studies on the impact of new technologies in the manufacturing sector. Data were collected by direct mail questionnaires from 140 companies representing 32,000 workers or 13% of the 238,000 workers employed in manufacturing. The researchers also conducted extensive interviews with managers, union officials and workers with direct experience of new technology.

Researchers found that the actual performance of new technology fell far short of its promise. Only 39% of the firms surveyed engaged in any corporate planning with regard to new technology. The vendors' assessment of its capabilities seemed often to be taken at face value. Lack of sound research and failure to consult production workers appeared to further reduce the likelihood of its effective implementation.

Most companies surveyed were not purchasing computerized technology for direct use in production processes, an apparent contradiction of one of the key findings in the Economic Council of Canada's (ECC) **Working with Technology** survey. The writers point out that the majority of firms surveyed by the ECC were purchasing office, not process, automation systems. Overall, the ECC data confirms the Labour Council's picture of a slow rate of innovation in key manufacturing technologies.

The researchers only touch on what are sometimes called the "soft" technologies of new management styles and motivational practices that often accompany the introduction of new technologies. The best known programmes wear the label Quality of Working Life; most had adopted

QWL rhetoric but little of what the workers interviewed judged to be QWL practice.

One of the distinctions of this piece of research lies in its movement away from the broad generalizations about technology as it attempts to determine the specific effects of each kind of technology on work and the work process. Overall, the researchers found that job loss caused by new technology is slight, though it varies significantly from sector to sector. However, productivity and efficiency gains eliminate the need for additional

that de-skilling is a myth which serves particular interests — those of people marketing computer-driven equipment to employees looking for ways to cut costs, and those of managers seeking lower wage scales and greater control over work flow.

Managers indicated that skill levels would increase for all groups of employees after the introduction of new technology, but saw little need for re-training to achieve this result. Only a small percentage of industrial workers surveyed received classroom and/or shop floor training, leading the re-



McDermott study shows some males resist learning keyboard skills.

hiring, and thus could have serious long-term effects on production-related jobs. They note also the uneven impact technology is likely to have on employment levels in the future, urging the need for research on sectoral distinctions.

Job displacement, rather than job loss, is seen as a critical concern. New jobs being created are not being made available to people losing their jobs. Almost half these new jobs are in the managerial and professional ranks; jobs traditionally defined within the bargaining unit are being redefined and excluded.

Both the question of what happens to workers' skills and the related question of training are discussed. The researchers found that on the whole the de-skilling of the industrial workforce is not occurring. Rather, they suggest

searchers to conclude that this increased level of skill is acquired on the job or on the worker's own time. The writers indicate that the contradiction of the ECC's data, this time on retraining (where 59% of companies met their needs by retraining), is again only apparent. Nearly 85% of the technological change training programmes surveyed in **Working with Technology** were for white collar personnel.

A survey such as this one is clearly a necessary complement to those largely concerned with people working in office settings. The researchers point to the need for sharing information about new technology across all sectors, in order to educate the workforce and to help in the development of strategies which will empower union locals as they respond to technological change. This study represents an important beginning.

The larger context within which this study is undertaken must also be considered. The writers point out that as the largest and most dynamic urban economy in the country, what is happening in Metropolitan Toronto has important implications for the entire Canadian manufacturing core. Over the past two decades, the manufacturing sector has been declining in its ability to create new jobs. The Ontario government's task force on Employment and New Technology projects that in the next decade job creation in the manufacturing sector will account for only 20% of new jobs in the province.

Clearly, there is some job loss in the manufacturing sector. Organized labour is being asked to accept these losses while managerial and technical job opportunities are expanded through the implementation of new technology. Yet even where job losses are direct and significant, they are not on a large enough scale to explain the erosion of employment in the manufacturing sector. When looking for explanations, technology cannot be named as the only culprit. The branch plant economy, foreign competition and an unstable investment climate may have more to do with some of the observed decline.

While it is of urgent importance that Canada's labour force become conversant with new technologies and their many implications, it is equally important not to lose sight of these other critical factors.

The Differential Impact of Computerization on Office Workers: A Qualitative Investigation of Screen-Based and Screen-Assisted Workers

by Patricia McDermott

Dr. Patricia McDermott of York University's Division of Social Sciences has completed her TIRF-funded study for the Ontario Public Service Employees' Union on the impact of computerization — specifically the

introduction of video display terminals — on office workers. Structured, open-ended interviews were conducted with 200 people from a wide variety of job categories. Respondents were divided into two groups, based on the amount of time spent at a screen. **Screen-based** workers were those spending 70-100% of their work day at a VDT — data entry operators, word processor operators and data processor technicians. **Screen-assisted** workers spend 30-40% of their work day at a VDT; this group held a myriad of different jobs, which fell into four broad types — scientific, systems analysis, data-based (accountants, economists, statisticians, library technicians, financial clerks/officers) and visual (map-making technicians, cartographers, photogrammatists, land surveyors, drafters, designers). In the interviews, five themes were explored — adequacy of physical setting, the changing nature of work, training, work monitoring and health. Major differences between the two groups emerged (Table 1).

The interview material is reported in summary discussion followed by representative quotations from over 300 hours of recorded conversations. These snippets of talk make us aware of the diverse impact of new technology on jobs and of the uneven distribution of its benefits and liabilities. At one end of the spectrum are the data entry operators, doing such hard,

mind-numbing work that, in the words of one woman, "It's not a job, it's a sentence." The physical pressure of operating old, heavy machinery has been replaced by a managerial pressure to meet quotas — a minimum of 11,400 keystrokes per hour. At the other end of the spectrum are people being freed by their computers of the repetitive, routine parts of their work, often being able to do their jobs better than they've ever done before. It is impossible to ignore the fact that the lower-paid, screen-based workers are mostly women, and the higher-paid, screen-assisted workers predominantly men.

Studies like McDermott's are important not only because the qualitative data lay the groundwork for more quantitative investigation, but also because they keep asserting that people's relation to the technology that they use is important.

One of the unspoken implications of research that values how people respond to computerization is that human needs, rather than the needs of an abstraction called "the system," should be an important element in the future design and introduction of computers into the workplace. Getting designers and engineers to attend also to people's needs would represent a radical and exciting departure from our present course. By such choices is the real progress of civilization measured.

Table 1: Summary of Data

Screen Based	Screen Assisted
Tend to be female.	Tend to be male.
Tend to be located in the lower end of the wage structure.	Tend to be in the upper levels of the wage structure.
Training is a minor issue.	Training is the major issue.
Tendency toward serious health problems related to their work.	Less serious health problems related to their work. Rarely discussed.
Work monitoring is the major issue for some, not for others.	Work monitoring is not present in most settings. Potentially a serious problem in some settings.
On the whole the physical environment perceived as poor.	Physical environment not a major issue. Rarely discussed.
Substantial complaints about the equipment.	Far fewer complaints about the equipment. Generally a minor issue.

Labour and the Process of Technological Change

Excerpts from Chapter 5 of the Canadian Auto Workers' Technological Change in the Auto Industry

by David Robertson and Jeff Wareham

Technological change serves a variety of ends for management. At various times and locations technology is introduced to:

- improve productivity, increase efficiencies and to reduce costs;
- standardize production methods and strengthen control over pace and quality of production;
- reduce direct and indirect labour levels and requirements and, at times, enable the use of workers with fewer skills;
- facilitate the reorganization of work to increase flexibility and mobility of labour, spread tasks among fewer workers and improve the output of work time.

Although each of these goals represents an area of potential conflict with workers, new technology is accepted and even supported by workers. In the master agreement between GM and the Union, for example, the Statement on Technological Progress reads in part:

In successive Master Agreements the parties have recognized that continuing improvements in the standard of living of the employees covered thereby depends upon technological progress, better tools, methods, processes and equipment well as a cooperative attitude on the part of all parties in such progress.

In such a context the role of the union has evolved as one of protecting workers against the detrimental effects of technological change while, to a lesser degree, striving to promote its beneficial impacts. Ultimately the

success of union efforts on both these fronts depends on a variety of political, economic and social factors.

Management's approach to technological change and the union's role in the process is conditioned by a broad

Technological change is a major issue for workers and their unions. The Canadian Auto Workers have produced a report which analyzes the findings of a recently completed technology project funded by Labour Canada's Technology Impact Research Fund. Historically a leader in the application of new technology, the auto industry today continues to be in the forefront of technological renewal. Drawing on an abundance of experience from people representing a broad cross-section of the industry, the researchers have produced a comprehensive document which examines technological change from a labour perspective.

Useful definitions and descriptions of various categories and kinds of technologies are provided in the opening chapter. In subsequent chapters, areas of critical concern such as job loss and job displacement, technology and the transformation of work, and the new management philosophy and agenda, are discussed. In light of the pervasive influence of technological change on the workplace which these chapters document, chapter 5 focusses on the necessity for workers to have full access to all necessary information about new technology and the right to negotiate the terms of its implementation.

range of historical and institutional forces, from broad macro-economic trends to the perceptions of individual local union leaders. As a result it is not surprising to find that while the contours of the technological change process are the same across the industry, the specifics range dramatically, from cases of unprecedented cooperation to cases of concealment and arbitrary imposition. But in every case the process of technological change affects the character of labour-management relations. In turn the nature of labour-management relations will affect the implementation of new technology and its consequences for workers and the work environment.

The Models of Change

There are basically three different models which characterize the different management approaches to technological change. The distinguishing feature of each model — a different point along the continuum — is the degree to which workers and their unions are involved in the process.

1. Autocratic

One pole is occupied by the classic autocratic or technocratic approach. In this model the introduction of new technology is perceived as an undisputed managerial prerogative. Implicit in this approach is the traditional organization of the workplace as a kind of military hierarchy with an operational philosophy adhering to the principles of scientific management. Just as important in this approach is the treatment of technology as strictly a technical issue: a robot, a computer, a numerically controlled lathe are, in this view, simply machines, pieces of equipment that require no more consideration than previous generations of tools, equipment and proc-

FOCUS wishes to thank the authors, David Robertson and Jeff Wareham, as well as Sam Gindin and the CAW's Technology Committee, for permission to reprint these excerpts. Robertson and Wareham have just completed a second study, "Computer Automation and Technological Change: Northern Telecom."

esses. New technology is an industrial engineering function and workers' tasks and jobs are treated as the residual factor after the machines have been put in place. Workers, to the degree they are taken into account at all, are treated as one more variable in the engineering equation, or else as a potential force of disruption that has to be controlled.

2. Human Relations

In the middle lies an enlightened capitalist approach which could be called the human relations approach. This approach stems from management's own critique of the autocratic approach, as well as from the influence of outside consultants. Managers have realized that new technology cannot be considered as just another machine. As such, the assumptions and style of the autocratic approach, far from ensuring the effective implementation of new technology, have become an obstacle to technological change. The human relations approach recognizes the role of workers as a source of information and exper-

tise in the workplace. The goal of this approach is not only to reduce resistance, but to develop worker commitment to technological and organizational change.

Workers, in this view, have an important role to play in the process of technological change and in working with new technology. Their viewpoints are solicited and considered, and somewhat more attention is paid to task grouping, job content and design. The human relations approach seeks participation, but in the end it seeks to control participation. It is based on the principle of cooperation, but whenever attempts at cooperation fail, management's position is immediately reasserted as the dominant one.

3. Negotiation

Occupying the remaining pole is the negotiation model. This approach recognizes conflicting interest in the workplace and it formalizes the rights of workers and the explicit role of their union in the decision-making process concerning new technology.

Like most real life situations, the process of technological change in the auto industry resists being neatly categorized by any particular model. The details of specific cases of technological change vary from one to another and may be in conflict with broader trends. Even so, there is a general pattern that has emerged:

- the historical trend is from the autocratic to the human relations approach;
- specific situations are usually hybrid ones — a clinging to the old approach combined with some new initiatives in participation;
- a technological change model based on negotiation has yet to be developed.

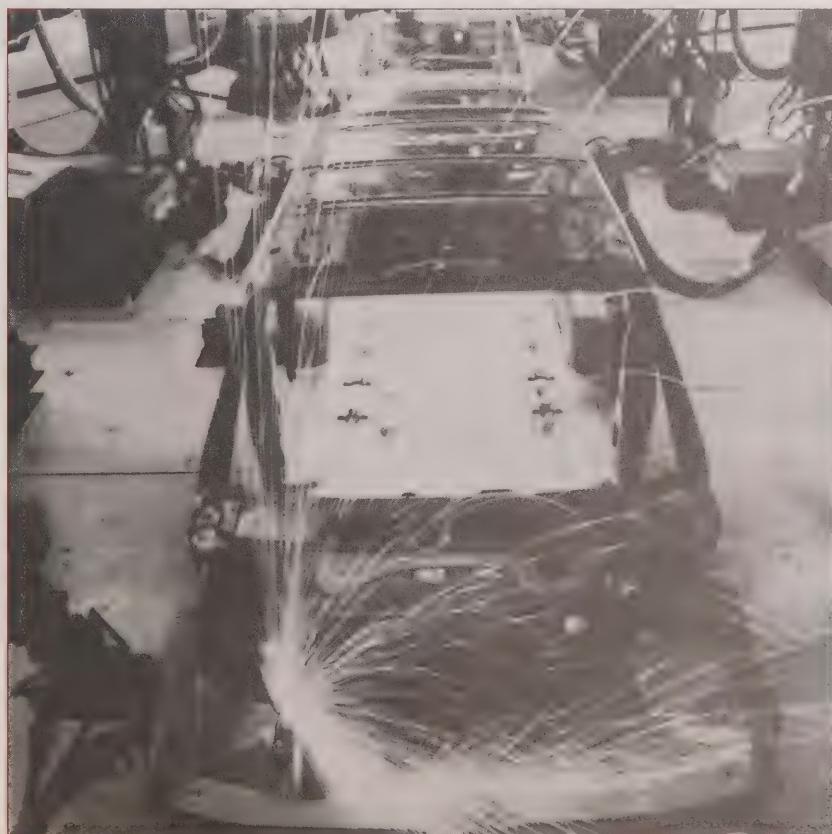
The Collective Agreements

The process of technological change has both a formal and an informal dimension. The former is defined by collective bargaining; it is governed by the regulatory framework of industrial relations; it is expressed in the legal language of the agreements. The latter is an informal process — the day to day cooperation (or lack of it) — which is influenced by the personal relations between managers and union reps. In any particular plant outcomes of technological change are shaped at both levels.

At the formal level the process of technological change is structured by the provisions of the collective agreements. In particular the following factors stand out: the extent and coverage of the contract language; whether events actually conform to the clauses or letters; the relative strengths and weaknesses of the language.

Contract Issues

Judging by the contracts themselves, what respondents report about the consultative process and the type of information that companies provide to the union, the contracts can be summarized as emphasizing the following issues:



Chrysler Canada

Automated welding line.

- the impact of technology on bargaining unit work and efforts to prevent the shift of work from represented to excluded workers;
- attempts to get the companies to provide retraining to workers displaced by the new technology;
- efforts to provide training opportunities for those skilled trades who will be installing and maintaining the new technology.

In many contracts it is the latter point — the terms and provisions pertaining to the training of the skilled trades — which is stressed.

Even these quite basic efforts at negotiation are resisted by management. The collective agreements reflect these limits in language. Most contract clauses are drafted in terms of what management considers to be "reasonable and practicable," union comments being "carefully evaluated," training programs offered "whenever possible," and to workers who have the "adaptability."

On the whole, the current provisions of collective agreements on technological change are out of step with the impact of those changes. What might have been adequate — even pioneering — when the language was first adopted is now insufficient. It suffers

from a number of shortcomings. Notice of impending changes are, as a rule, not advanced enough. There is a corollary to this: it doesn't matter how much in advance the notice is if there is no subsequent role for the union. Information is often inadequate and varies from situation to situation and location to location. Information is powerful only in so far as it is the right information and only in so far as it brings to light alternatives and the choices among them. Furthermore, consultation is often superficial, as it will be so long as participation is a privilege conferred, and not a right to be exercised. There is, at present, very limited negotiation on technological change.

The issue of new technology and its impact was first addressed by the skilled trade workers within the union. Current provisions of the collective agreements reflect these initial efforts. Increasingly, as the pace of technological change has accelerated and as its impacts have broadened, the issue of new technology has developed into one with union-wide ramifications.

Training and Technology

Training has become a prerequisite of the new technology, as central to its success as the equipment itself. At one level it is a relatively straightfor-

ward requirement, involving the teaching of technical skills to those who operate, maintain and repair the new equipment. But at another level the issue is more complex. In the context of technological change, training has become charged with a double responsibility: the transmission of technical and analytic skills and the fostering of a new set of workforce attitudes — identification with the corporation and stressing cooperative relations with management.

Technological change has forced management to pay more attention to training than it has in the past. The new emphasis on training is apparent: when Chrysler converted Windsor assembly plant #3 for the production of the mini-van it provided a total of 900,000 personhours of training to its workforce; the training programme for the GM truck plant conversion included a basic six days (48 hours) of classroom and hands-on training for all 2600 hourly workers; adjunct training centers and full-time trainers have recently been added at Ford Glass, Chrysler, GM Ste. Therese and Essex Engine; hundreds of workers are being sent away to equipment vendors or special centres for training courses, and scores of workers are receiving new on-the-job training. There is more time, money and facilities devoted to training than ever before.



Ongoing training programmes are an essential prerequisite for organizations implementing new technology.

Technology requires new and different skills. The content and focus of training is shifting to meet these requirements. The general trend is toward (a) higher basic academic skills; (b) special technical skills (i.e. electronics); (c) more emphasis on analytic skills such as problem solving, data interpretation and diagnosis. To these three must be added a fourth: what some in the industry refer to as "cultural training." Cultural training — strengthening the commitment of workers to production, developing a commonality of interest between workers and management, and increasing the flexibility and adaptability of individual workers, and the workforce in general — is becoming a dominant theme of corporate training initiatives.

Worker Reactions and Attitudes

For workers the issue of training is directly tied to employment security, on the one hand, and access to better jobs, on the other. Respondents to the CAW Technology Survey ranked training as one of the top three issues for union action on new technology. Furthermore, 85% indicated a need for programmes of continuing education to respond to constantly changing technology and jobs.

While training is potentially an area of common ground between workers and management, there are clear signs of tension and conflict over training choices and directions. At issue is:

- the extent of training;
- the content and appropriateness of the training courses;
- the uneven distribution of training;
- the process by which management selects those who will receive training, and
- more generally, the matter of management control of training.

While technology has led to a new corporate emphasis on training, that in itself is not a guarantee of anything. Many workers argue that there isn't enough training and they question

management's commitment. When workers aren't trained the door is opened for the company to use outside contractors, to have management employees do what would otherwise be bargaining unit work, and to have 'new hires' in jobs that could be filled from within the ranks.

The distribution of new technology training is uneven between companies. But new technology training is also unevenly distributed within the same company as well, between salaried and hourly workers, and within the ranks of hourly workers.

The question of the distribution of training is closely related to management's selection of candidates for training. Management's discretionary power around training gets expressed in three related ways: the provision of training without regard to seniority, management favouritism, and limited opportunities for older workers. One out of every three respondents to the CAW Technology Survey reported that training was provided out of line of seniority. The same proportion indicated that older workers were not given equal opportunities.

As with most issues surrounding technological change there is both a plus and a minus side associated with training. On the plus side is the increased corporate emphasis and commitment to training as well as those few noteworthy initiatives that suggest the possibility of changing established patterns around training. Examples are the GM Truck initiative of involving workers in the preparation, scheduling and teaching of course material and the efforts at Chrysler to have a group of skilled trade workers involved in scheduling and teaching training courses. On the minus side are all the indications which suggest that management will use training to shape the workplace in ways that unevenly distribute the benefits of new technology while unevenly sharing the costs.

Future Directions

New technology can eliminate jobs, displace workers, change skills, redefine jobs and alter social relations.

Technological change can dramatically change the organization of work and it can lead to shifts in the distribution of power within the workplace and within the broader society. These changes are yet to be responded to in collective agreements.

New technology can, and probably will increasingly, put strains on existing collective bargaining structures. Technological change can highlight both the strengths and the weaknesses of industrial relations systems. In recognizing these strains management has chosen to promote certain aspects of the Japanese model of labour relations, particularly those features that emphasize the informal, non-legal relationship between management and labour. In response many workers and union representatives have emphasized the importance of the formal, legal relationship.

Workers and local union leaders are concerned with a broad range of impacts of new technology. The responses to the CAW Technology Survey indicate that ranked at the top of the list of concerns that warrant the "greatest need for union action" are "job security, protection of the bargaining unit and retraining." But also on that list are a number of other concerns which are ranked highly: these range from the provision of "information on new technology" to "negotiating the hours and schedules of work."

Union efforts to negotiate the introduction of technology — the defensive and reactive posture of protection, as well as any effort to directly influence the design and implementation of new technology — quickly come up against the legal prerogatives of management. As one worker expressed it: "That management rights clause. You might as well take the rest of the book and throw it away. Something has to be done about it."

Unlike some jurisdictions, Canada fails to provide a supportive legislative framework for active union participation in technological change. Public policy has been directed at encouraging and, to varying degrees, underwriting or at least offsetting, the installation cost of new technology.

Governments have treated technology as a central element in the emerging equation of international competitiveness. Rarely has the state acted to mitigate the negative impacts of new technology, let alone empower workers to participate as an equal partner in the process of technological change.

In practice public policy initiatives — even legislation — are only first steps in strengthening workers'

rights around the introduction of technology. Eventually the factors that determine the effectiveness of union involvement in technological change are the same factors that determine the outcome of any collective bargaining effort: membership education and support, leadership and sustained action. As it relates to the introduction of new technology, however, success is also contingent on a clear assessment of the effect of technology, an awareness of the possibili-

ties for influencing changes and an exploration of the options implicit in any situation of technological change.

Copies of **Technological Change in the Auto Industry** are available for \$2.50 from:

CAW/TCA
205 Placer Court
North York, Ontario
M2H 3H9



Automation takes on human attributes as optical lasers and cameras are used to provide automated visual inspection of automotive body dimensions.

EUROPEAN REPORT

New Technology, Working Life and Management in Sweden

by Jacquie Mansell

It began in Canada, late in the summer of 1981. While in Toronto to attend the international conference, "Quality of Working Life and the 80s," senior representatives of Swedish management and labour charted out the basic terms of an agreement that would greatly affect the nature of workplace change in Sweden over the next decade.

Sometimes informally called the "Toronto Agreement," the **Agreement on Efficiency and Participation** was officially signed by the Swedish Employers' Confederation (SAF), the Swedish Trade Union Conference (LO) and the Federation of Salaried Employees in Industry and Services (PTK), in April 1982. This agreement, and similar development joint agreements which had been signed earlier by labour and management in the public and cooperative sectors, were designed as practical supplements to the 1977 **Act on Employee Participation in Decision-Making (MBL)**.

Landmark Legislation

The MBL was a landmark piece of legislation in Sweden. It gives substantial rights to all workers, through their unions, based on the concept that labour itself, and not only the ownership of capital, should entitle people to influence decisions within organizations. However, the legislation was designed so that it needed to be supplemented by local agreements in order to gain its full force. Hence, the major labour and management organizations negotiated



Technology can be designed so that people are in control.

the central agreements in order to provide a framework and guidelines to assist local union and management in developing the agreements required for the full application of the MBL legislation to their own workplace.

Economic Survival, Skill Development and Participation

The values and goals articulated in the central development agreements have provided the foundation for several exciting labour-management-government initiatives in Sweden. With respect to new technology, the 1982 agreement covering the private sector clearly illustrates the concerns and intentions of labour and management:

The parties are agreed that day-to-day as well as more far-reaching technical modernization offers many opportunities that must be taken to enable the company to survive, achieve success and therefore also safeguard jobs and employment.

In the event of technical change, a sound job content shall be the goal, together with opportunities for the employees to increase their skills and accept responsibility for their work. The knowledge of the employees should be stimulated together with their ability to co-operate with and have contact with their colleagues.

When technical change that involves major changes for the employees is being planned, the trade union organizations shall participate.

It is important that the employees are given opportunities for further development of their vocational expertise and skills. The company shall make available as early as possible training for the new jobs that technical change will involve. Such training shall be provided at the expense of the company and on unchanged pay and employment conditions.

As part of a broader national strategy to get widespread action on these values and goals, labour and management joined with the Work Environment Fund in late 1982 to launch a five-year programme called the Development Programme for New Technology, Working Life and Management — more commonly called the Development Programme. The Work Environment Fund, which is itself administered by a labour-management-government board, has contributed a total of approximately 14 million \$ Cdn. to this programme from its revenues (approximately 100 million \$ Cdn. annually) which come from a work environment contribution paid by all employers.

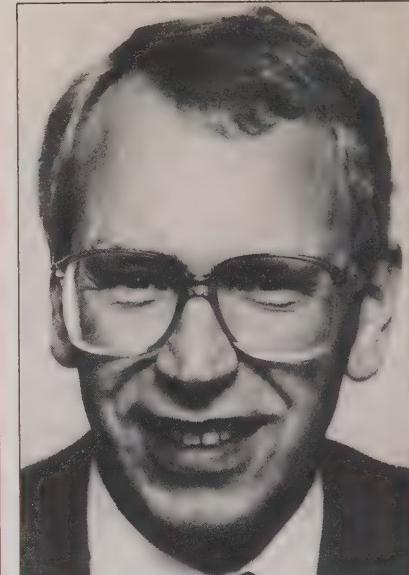
"Our welfare is dependent upon growth and technological development. Far too often new technology is introduced over the heads of the employees and without their participation. If the employees and trade unions can put forward their ideas and suggestions we then can create good patterns for the positive use of technology." — Stig Malm, General Secretary, Swedish Trade Union Confederation (LO).

To qualify for the programme, a project had to involve the application of a computer-based technology in a manner which supported both the organizational and human values expressed in the central development joint agreements. The project also had to be defined within the organization itself, "owned" by line (versus, for example, staff) management, actively involve the local unions, and have sufficient scope for real freedom to experiment with work organization. In addition, the project had to be strategically important enough to the organization that it would provide most of the funding itself. The Development Programme provided only the additional resources needed to enable a project to realize the high ambitions of the programme.

More than a "Give-Away"

The Development Programme has a strategic significance for management, labour and government — it is far more than a simple "give-away" programme. Its long-term objectives include:

- providing credible illustrations of what is possible in the area of technological/work innovation;
 - helping to learn more about the nature of the relation between technology, work organization and skill development, and about the complex process of technological/organizational change;
 - helping to disseminate, in any manner found to be practical and effective, the experiences and learnings from the projects; and
 - helping to develop a broader base of competent resources (e.g., in universities, research centres, and labour and management organizations) in this highly crucial field.
- The projects in the Development Programme cover almost the entire gamut of worklife in Sweden in terms of sector, industry, region and size. Within the guidelines, a project could be anything from the application in Saab-Scania of an advanced robotized assembly line and information technology used to support the creation of



Stig Malm

self-regulatory work groups with considerable autonomy for local administration and planning, to the original design of a mobile, portable on-line terminal system to be used by rural postal delivery people. (In Sweden, the Post Office also provides many key banking services.) Two other projects promoted information-sharing and co-operation through setting up networks of small companies, either within one region (Ostergotland) or one industry (wood products).

The diversity and richness of experience within the Development Programme represents an exciting base for learning. Several vignettes illustrate some of the possibilities that are emerging from that experience.

"The Development Programme is one of the most important elements in the effort to recreate competitiveness and growth. If business enterprises and government agencies participate in the development-oriented projects in the programme then this would set good examples of how high demands for efficiency can be united with jobs and a work organisation that admit participation, responsibility and feedback."

— Bjorn Svedberg, CEO Ericsson and Chairman of the Development Programme.

Pioneering Installations

Between 1983 and 1987, the Development Programme has helped to support approximately 35 projects in a wide range of private (70%) and public (30%) sector organizations throughout Sweden. The intent of the programme was to assist companies and administrative bodies who were attempting "pioneering installations" — with respect both to the choice of technology and to how the technology is applied.



Bjorn Svedberg

TELI — A Career in Computers

The future looked dim for a small group of blue-collar workers, mainly women, in the Traffic Systems Division of Teli Industries. Their jobs, of assembling printed circuit boards for highly computerized telephone exchanges, were about to be automated. As low-skilled workers, their employment options did not look good. Their employer, however, had enough vision to consider an untried but intriguing new possibility — why not shift the displaced assembly workers to an area of the operation where committed, capable workers were badly needed?

Although within the public sector, Teli Industries (Sweden's national utilities organization) must finance itself from its own revenues. Like most organizations today, it is greatly concerned with the effective use of its resources. The company was having serious problems finding and keeping the highly trained engineers who produced the software for the telephone exchanges they manufactured. "Why not," asked management, "redesign the systems for producing software so that the displaced assembly workers could be trained to become programmers?"

With help from the Development Programme for developing new programming methods and for the training of the blue-collar workers, in 1984 the company chose an initial group to

pilot the project. The only selection criterion used was that the person be willing to give it a try. The workers, who had been used to working as a group on the line, were trained for a similar work organization in their new jobs. They were given considerable social training and extensive technical training for a period of approximately one year. The technical training was a combination of classroom and actual on-the-job experience.

The experiment was a clear success and, as of early 1987, there were 20-25 ex-assembly workers, aged from 18-55 years, now writing software for the products they once simply assembled. Only two and a half years after the start of the project, the unit was paying its own way and is quite successful in winning new jobs in the open marketplace. The attrition rate in the department is now very low. And a group of workers who once had few skills, today have not just many new skills, but new careers, with futures.

Windoar — Untapped Resources

The situation at Windoor, a small manufacturer of doors and windows, was common enough — the workers strongly rejecting the report of the consultant who had been hired from outside to advise on the redesign of their department. The resolution of the situation, however, was novel.

Following a severe fire in 1984, Windoor decided to invest in a new computer-controlled production technology which would require significant changes in work routines in all parts of the company. The materials department was identified as an area requiring considerable changes and an external consultant was hired to recommend a new design. However, when the workers in the department argued that the consultant's recommendation would not work, management decided to let the workers have a go at the redesign themselves.

With the help of consultants from the local University of Technology, financed by the Development Pro-

gramme, the workers used their own untapped resources to conduct a systematic analysis of the production process and make their own recommendations for production volume, work organization and plant layout. Management agreed to test the workers' recommendations, with certain modifications, for a trial period.

Halfway through the trial period, the company was achieving its production goals and the workers were enjoying what they felt to be more meaningful work. Management and union then decided together to proceed with the design of a new work organization, based on enlarging the jobs and modifying the wage system, to form a base for more efficient production and on-going skill development.

Local Employment Offices — Vive la Différence

In the early 1980s, the new Director General of the Employment Service division of the Ministry of Labour decided to turn around the orientation and image of his organization. Previously a highly centralized and bureaucratic organization with a "welfare image," the new Director felt Employment Service should be in the business of providing service, to both employees and employers. To achieve this fundamental change in orientation, he decided to decentralize the organization and push responsibility down to the front line — the local employment office.

The Gothenburg Regional Employment Office in the west of Sweden seized this opportunity to conduct its own change project. Two separate local employment offices in the region were given the freedom to re-organize themselves in any way they wished, to provide better service to their community and a better work situation for themselves. All bureaucratic handbooks were thrown out; the only limitation on what people could do was the law. New technologies would be available to provide support for the kind of work organization they wanted. The people in both offices were assisted by social scientists financed by the Development Programme and by experts in the area of computer technology. The technical

experts were provided by their union, under the powers of the MBL legislation.

After highly participative redesign processes, the two offices chose dramatically different strategies and work organizations. The differences do not reflect any differences in basic goals; both groups were equally concerned with improving the quality and extent of their service. What the differences do reflect is the priority given to specific problems and alternative approaches to service, and different values with respect to work organization. Interestingly, gender seems to have played a key role in the differences which emerged.

The female-dominated office opted for a service strategy aimed primarily at the employee as client. The work organization they chose emphasized group organization and the reintegration of vocational guidance and placement tasks. The women also developed a special in-office training scheme designed to provide everyone, professional and non-professional, with opportunities for ongoing skill development and learning.

The male-dominated office, in contrast, opted for giving more attention

to the employer as client and chose a work organization based on a greater degree of individual work and specialization than before. In addition, the men were extremely concerned with the efficiency of their office and developed sophisticated budget control systems.

Despite their differences, both the local offices departed from the centralized information technology strategy of their parent organization and chose small scale personal computers as most appropriate to their needs. Two years after the start of the initial project, the Gothenburg Regional Office decided to proceed with the same participative redesign process in all of its local offices.

Key Learnings

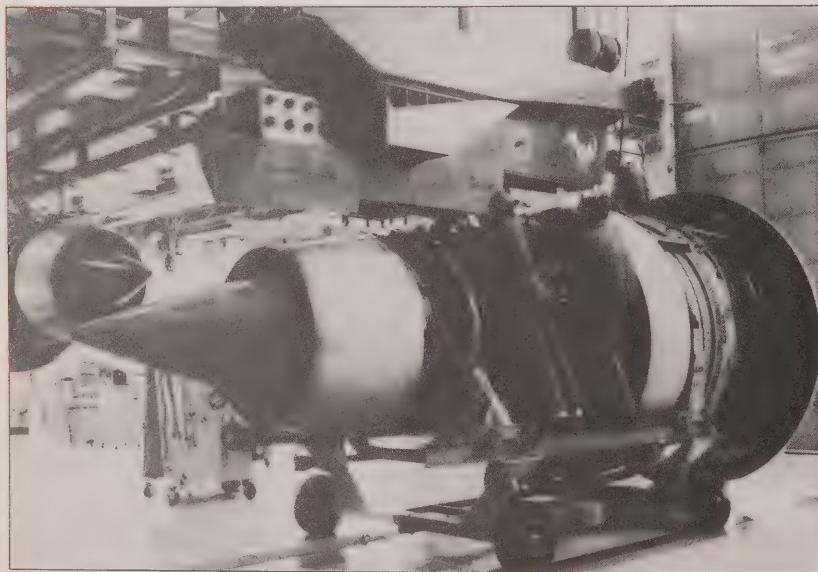
In 1987, the Development Programme was in the midst of its evaluation phase. Not all its projects have been successful; the inevitable short-falls and disappointments have certainly occurred. Yet even this early, several important lessons are emerging from both the successes and failures of the programme. One key learning has been the importance of face-to-face networks for the dissemination and extension of experience. To date, the Programme has supported two net-

works — one focussed on CAD/CAM technology and one focussed on office information systems. Although the organizations in the network often have little more in common than the specific technology, the network idea has proven to be a very useful way for different companies to learn from and with each other.

Above all, the Development Programme has demonstrated that choice does exist, both in terms of the types of technology available, or possible, and in terms of how any technology may be applied. The choice, however, is not a simple thing. The most effective choices are made only when they are based on an integrated approach to innovation. Technology, work organization, total skill formation and industrial relations must be recognized and treated as an integrated whole, if our choices of the future are to give us the future we want.

About the author

Jacquie Mansell is an independent researcher and consultant based in Toronto. She has recently returned from a year at the Swedish Centre for Working Life in Stockholm. She was formerly a senior consultant with the Ontario Quality of Working Life Centre.



Swedish industry excels in the manufacture of high quality precision products such as this aircraft engine.

AUSTRALIAN REPORT

Industrial Democracy in the Victorian Public Sector

As part of its industrial democracy strategy the state government of Victoria is sponsoring a series of pilot projects in the public sector. These projects will allow union-management teams in participating departments to explore how industrial democracy could work in their organization. Teams will first investigate how their organizations operate currently with regard to such matters as processes of decision-making, information flow and information needs, and assessment of employees' and management's central concerns about their work lives. Based on its findings, each team will recommend an appropriate permanent form of industrial democracy to the relevant Minister within twelve months.

No single, all-encompassing definition of industrial democracy is put forward. Rather, organizations participating in the pilot projects will be asked to develop a definition which suits their situation, based on their answers to three questions:

- how much **influence** should employees have?
- at what **level** in the organization should this influence apply?
- what **issues** can an industrial democracy project cover?

A set of principles governing these projects has been worked out by the Victorian government and the Victorian Trades Hall Council. These principles recognize the mutually shared goals of all parties, but also acknowledge the different demands which enhanced participation in

decision-making places on union and management. Care is taken to address such differences as union representatives' accountability to their members, and the union's limited resources to gain an understanding of the managerial practices which underlie decision-making in the organization.

The Department of Labour of the state of Victoria has set up an Industrial Democracy Development Unit to assist members of the joint team as necessary.

Study of Repetitive Strain Injury Leads to New Workshop Model

Merrelyn Emery of the Centre for Continuing Education, Australian National University in Canberra, has recently reported on a series of workshops held to explore and increase public understanding of repetitive strain injury (RSI) from visual display units (VDUs).

In Australia in the early to mid-80s, the incidence of RSI reached near-epidemic proportions in some sectors; in the state of Victoria alone the annual pay-out of compensation claims for injury by VDUs rose from \$200,000 to \$3.5 million between 1980 and 1983. By 1985 the national bill was running at \$400 to \$500 million a year.

The brief of the Centre for Continuing Education includes the goal of bringing the university to the community, and vice-versa. Investigating RSI, which was rapidly becoming an issue of national importance, was a logical project for this action research oriented organization. In the first instance, the target market was judged to be the Australian Public Service.

The project began as a one-day workshop organized around Dr. Trevor Williams' report on his RSI research. Response was so great that two separate workshops had to be offered. The first-hand experience of

workshop participants proved to be an even richer source of information than Williams' knowledge as an expert, leading Emery to conclude that the traditional teaching model of the first workshop needed to be modified to acknowledge this reality. And indeed her declared focus in the paper is not repetitive strain injury *per se* (though it includes a wealth of information for people and organizations facing this problem), but the evolving design of succeeding workshops.

She sees three major shifts in the workshop design. First, the lengthy expert-oriented and dependency-inducing survey was dropped completely. Because the participants' pooled understanding of the RSI phenomenon outstripped the capacity of the experts to gather the data, more time was given over to sharing of their own expertise — in effect the participants assumed the researcher role. As a way of building on this first-hand knowledge, participants of succeeding workshops were given summaries of previous workshop discussions.

The change in the workshop's title from "VDU Technology and Worker Disablement" to "VDU Technology, RSI and Work Redesign" indicates the second major shift: from a general discussion of the effects of working with VDUs to a specific focus on the immediate presenting symptom of repetitive strain injury. From the outset participants identified the need for organization redesign as the single most important strategy to cope successfully with the new technology generally and with the specific effect of RSI. While fifteen years of workplace democracy projects in Australia had given participants a strong sense of the value and importance of organization redesign, Emery found they lacked a clear understanding of the differences between bureaucratic and democratic structures, the design principles underlying them and effective processes of implementing a new design.

The third shift Emery identifies arises out of the second: from a consideration of a broad range of issues and

strategies the workshop moved to a much more specific focus on the concepts of workplace redesign and the concrete tools needed to plan and implement change. Participants were, as far as possible, recruited as members of a natural work team rather than as isolated individuals. This change in workshop membership allowed the question of work redesign to be concretely and realistically dealt with, from managerial to operator level — the bigger and more representative the work team from a single area, the better the design it was able to produce.

Emery anticipates the reader's desire to see some of these models, to know what these redesigns are like:

The redesigns themselves are not reported here as they are less important than the participative learning process which produced them. This has been shown to be a fundamental point in the strategy of democratization as the appeal of an agreed design is so exciting and seductive that the small sample of the natural work group often rushes off to impose its design upon the rest of the group rather than engage in a further stage of participative design. Unless the process is totally participative and sanctioned, such workshops must be regarded only as learning exercises where the participants' responsibility is to diffuse the learning gained, NOT to institute a new order based on their analysis and views. That would be simply a process of changing the bosses.

In the fifth workshop participants were split into two groups and time was allotted to identify other critical needs. Both groups named education as the greatest need. Bosses, supervisors, orderers and purchasers, authors, VDU trainers and teachers, doctors, counsellors and unions were identified as the target groups. Getting back to the engineers emerged as another central concern: machines should be designed to restore and encourage human communication rather than create barriers to it. Or, put another way, machines should follow social design, not dictate it.

Participants with little or no "academic" knowledge of the effects of



Peter Janecek

Too much time spent operating a VDU can result in serious damage to muscles, tendons and nerves.

organizational structures on their lives nonetheless pinpointed the bureaucratic work environment as the root cause of the injury. In the words of one participant:

RSI is the most currently widespread symptom of a system breakdown: the bureaucratic working environment has itself become a health hazard for all who work within it and RSI is distinguished from heart attacks, ulcers, general lack of well-being, etc., only by the suddenness of its rise to epidemic status occasioned by the introduction of the new high-tech equipment.

Emery only touches on other medical consequences of the new VDU technology, and the resistance to acknowledging officially that real problems exist — a phenomenon which Bob de Matteo documents in **Terminal Shock** (Toronto: NC Press, 1985), his comprehensive study of the potential health hazards of working with video display terminals.

The workshops reconfirmed Emery's belief and previous findings that "in the face of rapid change and uncertainty, the traditional slow cumulative accretion of knowledge was failing, and that democratic research could show the way." Beyond tapping this widespread and usually ignored expertise, the workshops served as a powerful instrument in enabling

people collectively to dispel a lot of myths about RSI which were serving to play down the seriousness of the epidemic, taking the pressure off employers and equipment makers, and shifting the blame to the user.

This brief account of Emery's paper does not reveal many of the particular insights it contains about how to develop strategies to respond to RSI. Ultimately, she is concerned to explore how such a workshop series can have wider application. In an interesting concluding discussion, Emery places the RSI phenomenon in the much larger context of society in a period of cultural crisis. The last word shall be hers:

Nor should it be concluded that this model is confined to the effects of VDU technology, health issues or workplaces. In a world which continuously presents us with surprises, the next surprise can only be just around the corner. The organizational design or re-design segment with its concepts and tools applies equally to families, communities, schools, and voluntary organisations; to any group who wishes to organise itself democratically and effectively. Used flexibly and imaginatively it can help reform and revitalise our social infrastructure, providing much needed support for individuals at risk in an increasingly dissociated environment as well as improving the quality and quantity of communication about emerging and critical issues. AIDS is a current case for the dispelling of myths.

Once our formal work places for paid employment are cleaned up, the concepts and tools for democratization can be focussed more on the design of other aspects of our lives as citizens and people. The means are available; only the will to perceive and deal with more subtle epidemics is currently lacking.

For a copy of Emery's paper, contact:

Ontario QWL Centre
Ministry of Labour
400 University Avenue, 15th Floor
Toronto, Ontario M7A 1T7

Human Resources Practices for Implementing Advanced Manufacturing Technology

Washington, D.C.: National Academy Press, 1986.

by Eleanor Dudar

With the introduction of advanced manufacturing technology (AMT), large-scale organizational change is unavoidable. You cannot take a traditionally designed workplace run by traditional management practices, introduce new technology, and expect the system to work. A recurring theme in the literature on new technology in the workplace has been the failure of organizations to tap the full potential of that technology. It is increasingly clear that fundamental changes must occur in the way the human organization is conceived, developed and managed. What has not been so clear is what these changes are, and how and where and when they should occur.

Some answers to these questions emerge from the practice of sixteen U.S. companies successfully implementing AMT, summarized in **Human Resources Practices for Implementing Advanced Manufacturing Technology**, a 69-page report commissioned by the Manufacturing Studies Board of the U.S. National Research Council. The report has been designed to inform managers, union officials, and workers with little experience in implementing AMT about the practices being used by its early adopters.

The sixteen sites chosen for study by the tripartite union-management-government committee represent a variety of circumstances: of the seven union sites, four are existing plants, and the other three new or "greenfield" sites. Of the nine non-union plants, seven are existing and two are greenfield. At these sites, a strong correlation exists between the number of human resource practices and the

number of innovative manufacturing practices being implemented. Five of the six leaders in human resource practices are non-union plants. However, it is noteworthy that the clear leader in innovative human resource practices is a unionized greenfield plant.

The committee decided to focus primarily on human resource practices that affect production workers, and since computer-aided manufacturing (CAM) has the most direct impact on production workers, most of the sites selected were implementing applications of CAM.

Each chapter summarizes the general characteristics of the changes being implemented, as well as providing actual examples, in one of seven areas of human resource practices: planning; plant culture; plant organizations; job design; compensation and appraisal; selection, training and education and labour-management relations. Repeatedly, the report emphasizes the necessity for highly integrated change throughout the organization which is planning to implement new technology. Occasional comparisons between practices that worked in the traditional organization and those required in this case are used to clarify just how large and pervasive these changes are.

Foremost among the conditions necessary for successful change of this magnitude is employment security. The report writers state emphatically that none of these innovative practices can be fully effective unless the planners also address this over-riding concern of workers and their unions. In no instance at the sites studied had the introduction of AMT resulted in unemployment, though a loss of jobs would probably occur in companies that lost previously subcontracted work.

Other critical prerequisites for successful AMT implementations include:

- a compelling business rationale: the stronger its economic base, the better. Unprecedented increments in performance expectations with AMT are seen as psychologically necessary to drive the processes of organizational invention that will help fully utilize the technology's potential;

- a comprehensive human resources strategy: the impact of new technology on people must be understood and addressed in the planning stage and at every subsequent phase in the design, approval, and implementation of the technology. It is important to give as much thought to the human aspects of the new technology as to the technical and physical aspects;

- an effective guiding philosophy: management must be dedicated to achieving a whole range of improvements in plant organization and culture. Management must also try to build a favourable consensus among company, work force, union and community;

- an openness to learning from one's experience and that of others.

The report makes clear that the flexibility needed to run an organization which exploits the full benefits of its new technology will come from better educated, more highly skilled workers who are encouraged to use all their capacities. Logically, then, worker participation is seen as important; however, from the examples given it is unclear how significant this participation was in actual practice.

Rather less logical, given the report's general recognition of the desirability of integrated change that occurs at all levels and "the earlier the better," is the committee's decision not to explore "how far it is reasonable to go toward joint planning of technology and other matters of mutual concern." One wonders by what criteria a joint planning endeavour in a matter of mutual concern goes too far, and becomes "unreasonable." It would have been useful to hear at least the terms of the debate about joint planning of technology in the design stage, if debate there was. Presumably the failure to pursue such a point reflects the limits imposed by the need to produce a consensus report acceptable to all constituencies.

The last chapter asserts that the implementation of AMT in a way that benefits managers, workers and their unions requires strong labour-management relations. The committee found a number of instances where "co-operation and joint problem-solving between unions and management about AMT were part of a general change in the balance between co-operative and adversarial processes." The report only touches on some of the complex dilemmas this shift poses for both management and union. No trend was discerned, for example, in the way issues relating to the diminishing boundaries between management and work force were being addressed, clearly an area which requires a delicate balance between a co-operative and an adversarial stance.

The questions that the committee noted it could not answer conclusively suggest directions for further exploration:

- which human resource practices are effective with which forms of AMT?
- did the committee observe practices that were effective at the sites visited, but might cause adverse effects under other circumstances?
- which practices are effective with AMT while the technology is newly implemented but will be less effective or less likely to be used in the future?

In elaborating upon this third question the committee points out one way in which future debate about new technology and the social organization of work may proceed:

Will the AMT applications observed by the committee evolve in a way that makes the recommended human resource practices less necessary in the future? Will the demands for active attention, diagnostic skill, and maintenance know-how decline as further automation simplifies these tasks? Will the second, third, and nth implementations of similar AMT configurations become more routine and require less extensive participation? Will it once again become more feasible to follow a path of "deskilling" and routinizing work and moving

decision levels higher in the organizations? Even if companies are able to go back to more traditional organizations, will following this path make sense, considering its effect on employee commitment? These issues warrant attention as the technology continues to evolve.

Notwithstanding the potentially regressive implications of this passage for the future workplace, this highly pragmatic document reveals through the variety of strategies being adopted that technology by itself does not and should not dictate the nature and organization of people's work. With or without the introduction of AMT, the workplace can be organized to enhance or diminish the human potential to invent, initiate, co-operate, and find solutions to increasingly complex problems. Without ever saying so directly, the report leads this reader to the conclusion that what is best for people on the job will stimulate the most effective use of the technology they design, operate and control.

Limited copies available from:

Manufacturing Studies Board
2101 Constitution Avenue
Washington, D.C. 20418

Workable Futures: Notes on Emerging Technologies

by Words Associated and Keith Newton. Ottawa: Supply and Services Canada, 1986.

by Eleanor Duder

As part of its research programme on Labour Market Impacts of Technological Change, the Economic Council of Canada has produced a short guide to the major new technologies to promote an understanding of their potential opportunities and challenges. The guide — a sparse 49 pages plus an invaluable 13 page glossary of high-tech terms — gives the non-specialist a means of distinguishing between types of new technology as well as an understanding of how they are interrelated.

The text announces its focus on the new in its very format: short paragraphs are islands of print floating in a sea of white space, occasionally accompanied by arresting illustrations. Tidbits of readily digestible factual information engage the reader's interest.

Item: **Microelectronics** — the number of circuit components per chip



We need to achieve a happy co-existence of people and technology.

has doubled every year since 1959; today manufacturers are squeezing up to one million functions onto each chip.

This tidbit, coming on page one, signals the rapidity and enormity of changes taking place in this technological revolution. The reader is to be awed by the amazing growth and potential of new technology.

Item: Artificial Intelligence — in computer terms it is estimated that in human vision "an equivalent of 10 billion calculations would be made on an image before it reaches the optic nerve en route to the brain."

Imagine, then, the enormous complexity of developing machine vision which already, in its early stages, is increasing the flexibility of previously blind industrial robots.

Item: Computer-integrated manufacturing (CIM) — its awesome capacity is demonstrated in the example of GM's Hamtramck facility in Michigan: planners expect to cut the time involved in changing a cell from one model to another from three days to less than 10 minutes.

And if you're unsure about what a manufacturing "cell" and CIM are, this guide will tell you.

Facts, and especially numbers, are used in this study to dazzle, to excite the reader's imagination about the seemingly infinite possibilities of a future shaped by new technology. Its power and importance are underlined when we are told of GM's plan to invest \$2 billion in redesigning its Oshawa plants, or of the \$400 million spent by Chrysler Canada in 1983 to computerize and automate its Windsor plant, or of Northern Telecom's research budget of \$4 billion for 1985-89. Such high investment is obviously expected to yield high returns.

The range of new technologies discussed is very broad, from the relatively familiar field of microelectronics through to the relatively unknown fields of advanced materials and biotechnology. Clear definitions of these new technologies and examples of their specific application

give the reader a concrete picture of their actual and potential use. The book highlights areas where Canada already has developed expertise, chiefly telecommunications, and draws attention to new fields, such as computer integration, where we should be in a good position to compete for a share of the global market.

But what about the people in whose workplaces these new technologies will be found? The probable disruption that new technologies will cause in people's working lives is not the subject of this guide. As Keith Newton reminds us in his thoughtful preface, it has been produced to help us grasp imaginatively the new realms of technical feasibility that are being opened up. In steering clear of any direct discussion of job displacement or job loss, the writers are undoubtedly hoping to make us feel open to and excited by these new opportunities. They want to avoid feeding fears that close minds to anything new. Fair enough. A better way, perhaps, to allay fears might have been to explore at some length the crucial importance of changing the social organization of work — a subject which is accorded a mere two pages at the conclusion of the final chapter. Far more important to most people than the oft-repeated opportunity to grab a major share of those "vast global markets" might be the opportunity new technology offers organizations to change the nature of work in ways that combine greater human fulfillment with the maximum use of technical capacity.

This guide helps us to become more knowledgeable about new technologies. We need this understanding to foster the informed public debate which must precede the development of a humane and effective vision of how best to shape our "workable futures."

Available by mail from:

Canadian Government Publishing Centre
Supply and Services Canada
Ottawa, Ontario K1A 0S9

Canada: \$5.95
Other countries: \$7.15

Flexible Manufacturing: Integrating Technological and Social Innovation

by P. T. Bolwijn, J. Boorsma, Q.H. van Breukelen, S. Brinkman, T. Kumpe. Amsterdam: Elsevier, 1986.

by Hazel Kerwood, P. Eng.

This book is a collection of separate studies. The seven parts into which the book is divided are each written by a different combination of the five authors, which allows individual expertise in specific areas to be recognized.

An excellent resource for anyone who needs an understanding of computer assisted technology, the book is also a good guide to the technical conversion of an old production process to a flexible manufacturing system. It contains a very detailed discussion of the technologies involved, how to identify specific technological needs and a framework for the analysis of the costs and benefits of these new technologies. The book also offers excellent practical examples of the technologies in use.

However, the authors also claim to demonstrate the integration of technical and social innovation. This is where the book falls short of this reader's expectations. The discussions of job and organization design are often tacked onto the end of the technical discussions with little success in linking the technical and social ideas together. I would have liked to see more discussion of the implications for organization redesign arising from the technology, and a better integration of the two.

Some of the authors write about organization redesign within departmental boundaries; however, they do not appear to recognize the possibility of total organization reform. Their view of an organization as a whole still appears to be of a functional or bureaucratic nature, arising out of their narrow focus on the production department. They fail to demonstrate clearly how the production department must work in conjunction with the rest of an organization in order to realize

fully the flexibility offered by a flexible manufacturing system.

While there are many practical examples of a new technical generation at work, there are few examples of what a new social generation looks like. There is some organization theory, but few ideas about how it works or might be implemented. I would also have liked to see the authors investigate some cases of technology implementation that have failed to provide significant competitive advantage. It would have been interesting to see whether these failures consistently omitted the integration of technical and social innovation. Often, instances of failed implementation can highlight the critical success factors better than the instances of successful implementation.

The topics covered in this book centre on the technological requirements to such an extent that it is hard to avoid the implication that organization reform must be technology-driven. In practice, organizations can enhance their success through adopting a flexible design even without flexible technology. In fact, if technical and organization change are both to take place, then organization change should come first. This is essential to ensure that the technology that is purchased will support the new organization processes rather than the old.

A flexible manufacturing system cannot be technologically effective without flexible organization design. The QWL new paradigm organization, because it offers the greatest flexibility, is the most effective design for implementing technology. It merits a more consistent and thorough consideration than this study provides.

Despite its shortcomings, I do not wish to be too hard on this book. The technical sections are excellent and the book does raise some organizational issues for technically oriented readers, which is more than most books on technology do today. It is certainly a good beginning to educate the technical sector about social concerns and possibilities.

Managing Technological Innovation: Organizational Strategies for Implementing Advanced Manufacturing Technologies

by Donald D. Davis and Associates. San Francisco: Jossey Bass, 1986.

by **Don de Guerre**

Organizations are being forced to adapt to changing global socio-economic conditions in more fundamental and radical ways than at any time since the beginning of the Industrial Revolution. Microprocessor-driven technologies hold the promise of increasing organizational flexibility and response capability, thus allowing ongoing adaptation in rapidly changing socio-economic conditions. To accomplish this rather difficult task requires organizations that have the capacity to learn and managements that welcome innovation and can provide the organizational leadership to involve people and enhance their creativity.

The traditional hierarchical, bureaucratic forms of organization with overly specialized professional production managers, engineers, marketing and human resource professionals seem incapable so far of adapting the new and innovative structures and processes necessary to use the new technologies fully. In **Managing Technological Innovation** Davis and Associates suggest that this is because the new microprocessor-driven technologies change not only the ways in which tasks are accomplished but also the relationships between various organization functions and between the organization and its external environment. The traditional approaches to shop floor management and organizational design were developed at a time when high organizational flexibility and response capability was not required. Hence learning, innovation, and adaptation are not features of these approaches. Thus it is that the most fundamental beliefs about the nature of management and the nature of organizing work must change.

The book is organized into three sections with several short chapters by

different authors comprising each section. Part One exposes the need to examine organization design and managerial philosophy as impediments to the use of advanced manufacturing processes. Chapter one by Davis describes the importance of an organizational perspective to a thorough understanding of how best to adopt and implement new technologies. The two succeeding chapters show how a firm's speed and success in adapting to new technologies relate directly to the system characteristics of the adopting organization, its management and the surrounding environment.

Part Two of the book describes some empirical studies that examine the characteristics of workers, managers, organizations, and organization environments that are undergoing the process of adapting to technological change. Areas surveyed in this section include the vendor-user relationship and how it can contribute to successful implementation, the effects of robots on employees and recommendations for managers, the successful use of CAD/CAM technology in the manufacturing of electric, electronic and transportation equipment, and the application of socio-technical systems (STS) design principles to the adaptation of a CAD system by Zilog, Inc., a manufacturer of microprocessors. The Zilog case presents a convincing argument for the important role STS design plays in creating organizations which can make optimum use of the new technologies.

Part Three of the book addresses the importance of new technology for business policy and strategic planning. New approaches to marketing and the role of advanced manufacturing technology in the development of a competitive strategy are discussed. Of particular interest is a chapter on the role played by the National Science Foundation, which has coordinated and funded much of the research in this area over the past several years. Although the writers are not optimistic about the ability of government to contribute and suggest that businesses will have to help themselves, they do suggest some policy changes for government.

Managing Technological Innovation was written primarily for academics and researchers. This book provides a comprehensive overview of some major implications of advanced manufacturing technology. There are insights in this book for anyone interested in the field of organization renewal and adaptation to new technologies.

Davis and his fellow authors raise a number of questions about technological change and suggest that only by looking at the organization as a whole can these questions be answered satisfactorily. What they seem to miss, however, is that the open systems perspective of QWL and sociotechnical systems design provide an organization-wide perspective. QWL and socio-technical systems design proponents have long suggested that in order to realize the full potential of advanced manufacturing technologies, organizations must be redesigned in accordance with the characteristics of new technology and the expectations people have of their work lives. What QWL and socio-technical practitioners know that Davis and Associates do not seem to recognize sufficiently, however, is that as well as having an organizational perspective, the actual implementation of new technology requires the full involvement of workers and their elected representatives. They fail to recognize that organizations are more than production agencies, that they are also societies in miniature with their own socio-cultural and political characteristics. As the researchers observing the sociotechnical design at Zilog point out, effective organization redesign is a complex process that affects all members of the organization, often requiring changes in roles (in this case, particularly of engineers) and relationships. This writer's own experience with redesign processes related to the implementation of new technologies in electronics manufacturing suggests there may also need to be changes in labour management relations and in the collective agreement.

In some ways, as is often the case, the development of new theoretical perspectives lags behind practice in

the real world. Nevertheless, Davis and Associates present a valuable overview that is useful for theoreticians and practitioners alike.

About the author

Don de Guerre is a senior consultant with the Ontario QWL Centre.

Mutual Gains: A Guide to Union-Management Cooperation

by Edward Cohen-Rosenthal and Cynthia E. Burton. New York: Praeger, 1987.

by Jan Mears

Mutual Gains is a useful guide for both practitioners and academics interested in furthering the practice of joint labour-management change programmes. Unlike many books on the same subject, **Mutual Gains** is neither too simple nor too academic for the average reader. It provides an extensive overview of the possibilities for joint union-management collaboration by drawing on past experiences as well as looking at new opportunities for the future.

Burton and Cohen-Rosenthal state at the outset that their goal is to help managers manage better and unionists to be better unionists, not neutered parties. It is their contention that only through joint cooperative activity can each party become more effective in its own right. Because they have made a deliberate choice to explore potential change with joint labour-management initiatives rather than simply looking at ways to develop more innovative work practices, the focus of their book is different from much of the literature produced in the field of workplace change. Unlike those people in the field who see unions as "an unnecessary anachronism" in today's society, Burton and Cohen-Rosenthal believe that unions provide a crucial balance in the workplace. For them, "a union is not a third party . . . it is an instrument of the workers in any one location."

They remind readers that "the international union with which local unions are affiliated is no more an outsider in most change processes than higher corporate levels of an organization."

Through recommendations based on an analysis of practices in a variety of change programmes, **Mutual Gains** can help both union and management people make an effective start in changing their organization. In addition to covering such traditional areas as joint union-management cooperation in the areas of improved labour-management relations, training, and health and safety, the book also outlines approaches to dealing with new technology, building new structures and systems for joint change efforts, marketing and new product development, energy conservation, communications programmes, community fund drives, and employee assistance programmes.



Good initiatives are cooperative.

Of particular interest to many practitioners is the contribution that the authors make to linking collective bargaining to joint labour-management processes. Most change programmes sporting the QWL label have tended to view collective bargaining as the sorry sister, with the result that an inevitable conflict with the union arises, either sharply and immediately, or slowly but surely. In broadening the scope of what constitutes collective

bargaining, Burton and Cohen-Rosenthal move beyond this dichotomy.

The authors do not lock themselves into a historical and therefore tradition-bound approach to collective bargaining and its predictable outcomes. Rather, they distinguish three types of collective bargaining activity and see real possibilities for contributing to positive change:

- **distributive**, which concerns pay, hours, working conditions and benefits and will always involve conflict;
- **integrative**, which includes areas where both parties have something to gain, such as health and safety, joint technology committees;
- **strategic**, which addresses joint future planning in such areas as new technology, new product lines, marketing.

So much present collective bargaining is characterized by a win/lose stance which dictates that bargaining be primarily an adversarial relationship. In such a case, the tendency to link present issues and past grievances with any discussion about the organization's future plans results in minor tinkering, when often major adjustments may be required.

The distinctions Burton and Cohen-Rosenthal make can help to get the parties thinking about bargaining, not as a single event, but as an activity which encompasses at least two, and perhaps three, distinct modes of relating, depending on the nature of

the issue. Finding a scheme which allows people to acknowledge that there are different categories of issues to be addressed and different interests at stake leads to more effective bargaining on all levels.

Mutual Gains makes an important contribution to the literature. It is one of the few books that treats the context of changing labour-management relations as a central issue, and not merely an incidental concern. It provides comprehensive definitions and descriptions of the various approaches to workplace change as well as offering practical tips for implementing these programmes. Because it offers both theoretical and practical assistance, the book can serve as a comprehensive reference for anyone involved in the field. Based on thorough research and a clear understanding of the historical context, and constantly informed by the first-hand experience of the authors, **Mutual Gains** is a resource of great depth for those who will take the time to read it and keep it handy on their bookshelf.

About the author

Formerly with the Canadian federal government and Continental Can Canada Inc., Jan Mears is a partner in her own firm, Workplace Resources Inc. She specializes in a broad range of emerging social issues in the workplace.



CAD system frees up operator to ponder design options.

The Implementation of Technological Change

by Carol A. Beatty. Kingston: Queen's University Press, 1987.

by Tom Rankin

Relatively little Canadian research has been carried out concerning the introduction of new technology. Accordingly, Carol Beatty's recently released study is an important contribution to building a useful body of literature on this critical aspect of the emerging technological revolution. The purpose of the study is to begin "the task of developing models and guidelines for the effective implementation of an advanced technology." The study deals specifically with computer assisted design (CAD); data were gathered via questionnaires and interviews with 126 CAD operators and 31 CAD managers in 25 establishments across Canada.

In light of the current debate over the possible effects of new technology on both the quantity and quality of work, several of the study's key findings are worth noting. First, there is little evidence that CAD leads to degrading work. Second, Beatty found that managers who based their decision to invest in CAD solely on increasing labour productivity were most likely to be disappointed with CAD. Not only are such increases difficult to achieve but more important, they divert management energies away from the strategic benefits of CAD: improved design quality, shorter response time and more flexibility. Finally, the most productive CAD operators were those who believed that (in addition to other factors) CAD was being used to perform important work of the establishment in question and that the CAD system would provide operators with more challenge and variety on the job and more meaningful work.

Beatty concludes her study with the hope that it will be of use to managers who are implementing CAD. I have no doubt that it will. However, I suggest social science could make an even more significant contribution to practice (and theory) if the model-

Ontario Centre for Advanced Manufacturing

building, "naturalistic" methodology underpinning this and many academic studies were supplemented by an action research approach. The idea that one can effectively model reality is, I believe, questionable. Reality is too complex to be reduced to models. And social science knowledge is too limited in space and time to permit any but the broadest generalizations about human behaviour. The challenge to social science is to link its distinctive competence with that of managers, unionists and workers in order to continually reconstitute better worlds.

About the author

Tom Rankin is an independent consultant and researcher based in Toronto.

Command Performance: The Low-down on High Tech, 1986.

Videotape by OPSEU

by Eleanor Duder

"Someday everyone working for the Ontario government will have a computer, be it in the office, out on a truck, in an airplane or in the middle of a forest."

So says Dave McNaughton, Assistant Deputy Minister, Computer and Telecommunication Services, Ministry of Government Services. For those government workers yet to get their computers as well as the 8,000 who already have them, the Ontario Public Service Employees' Union (OPSEU) has prepared a video on the effects of new technology on its workers.

The programme provides a short introduction to the "fastest-breaking technological revolution in human history," and then touches on three major issues of concern to workers: health and safety (the debate about non-ionizing radiation and its potential dangers; the so-far irreversible

damage of repetitive strain injuries); electronic monitoring; deskilling and job loss.

Thoughtfully orchestrated and edited, the video is composed of the requisite number of the right pictures to accompany a set of messages whose power lies in their contradiction.

The messages sent by senior civil servants are reassuring. McNaughton doesn't believe people should be constantly monitored, he's aware of the importance of people having some choice about technology, and of the value of employees having their voices heard. Dave McGowan, Executive Director of the Ontario government's Information Technology Division, says that the government is not going to see people in the civil service lose their jobs because of technology. And Darwin Kealey, Assistant Deputy Minister of Health, speaks enthusiastically about the improved service workers can give clients because information can be accessed instantly.

The messages of the workers are not reassuring. The reality of working with these computers on the job does not match the ideals held by these senior executives, as the government's own task force on New Technology and Employment pointed out. And the little-heard voice of experienced workers provides a needed balance to the powerful advertising that portrays new technology in its pristine splendour as the panacea to all our problems. As David Suzuki says at one point, "No technology comes free. Each one has a cost. The problem is the cost only becomes apparent much later."

This film touches on some of these costs. Women whose work has been dramatically changed by the introduction of computers describe what it means to have their every move watched over, their performance rating tied to matching or exceeding a set standard. And another worker describes the steeply-tiered hierarchy she has to proceed through to get her concerns about the computerized workplace heard.

Dave McNaughton is an especially attractive screen presence. His authority in the film derives at least as much from the fact that upon assuming his post he *threw out* the large and powerful computer they gave him, as from his position as chief technologist in the Ontario government. When he says "Let's build our solutions knowing that people can think," or "When we make mistakes it's because we didn't think through the hows well enough," this viewer is prepared to believe his sincerity. The problem seems to lie in the implementation of these ideals, a major point the film quietly makes time and time again.

David Suzuki asserts the importance of maintaining people's control over machines, of keeping the human touch by involving workers in decisions about technology. The film ends with OPSEU President James Clancy appealing to the Ontario government to rescind the section of the Crown Employees Collective Bargaining Act (CECBA) prohibiting any right to bargain collectively in the area of technological change. Given the known widespread effects, physical and psychological, that office technology has on workers, and the general agreement that technology works best if workers have a voice in its choice and implications, it is hard to imagine a government being able to resist this plea for long.

And this brings me to the likely audience this video is seeking. Two constituencies stand out — OPSEU members generally, those without computers at the moment as well as those having them, and key managers and strategists everywhere in government circles. The argument is well-reasoned and completely unsensational. By putting the ideals of sincere men at the policy-making level beside the discomfort and even, in some cases, anguish of the workers affected by the technology they work with — largely women as it turns out — the film demonstrates a hope that the real message — the need to bridge the gap — will be heard and acted upon.

This video is available from:

The Department of Education and
Campaigns
Ontario Public Service Employees'
Union
1901 Yonge Street
Toronto, Ontario M4S 2Z5
(416) 482-7423

Computers In Context, 1987

Videotape by California Newsreel

by Hazel Kerwood, P.Eng.

This video introduces the audience to "an innovative, human resource based computer design paradigm which has emerged in Scandinavia over the past decade." This paradigm considers computers as tools which are used to support worker creativity rather than to replace workers. In this model, computers are not implemented in isolation; instead, they are one part of a joint technology-human resource strategy.

The video illustrates this paradigm through three case studies of programmes which are being implemented in the context of Scandinavian codetermination legislation. First, tellers at a savings bank near Oslo become "personal account managers" through the use of multi-functional terminals which allow them to offer a full range of services. These front line employees then play a customer-oriented, boundary-spanning role between the bank and the customer, providing a competitive advantage for the bank and a more interesting job for the employees.

The second case is the UTOPIA project, which was a project undertaken by computer scientists and the Nordic graphic artists union to develop specifications for a flexible newspaper layout system. Its aim was to supplement and facilitate the graphic artist's use of his/her implicit knowledge and aesthetic judgement in developing creative newspaper layouts, rather than slotting information into a standard format. The system was received so enthusiastically by the graphic artists and was so successful in offering them

flexibility and control over their tasks that it is now in commercial distribution.

The final case study is the SAS's airplane maintenance facility near Stockholm. An expert system had initially been installed to perform problem solving. However, the workers relied excessively on the computer with a resulting drop in quality. The system was then redesigned to provide decision-support capability rather than decision-making capability. This alternative allows the workers assisted by the computer to make better decisions than either they or the computer could make alone. This case highlights the recognition that it is not possible to formalize tacit knowledge without changing it into something else.

As far as it goes, this video provides an excellent understanding of the alternative to the technology-driven organization of work. In fact, in a recent survey of business students, this video proved to be powerful enough to give people whose primary concern is technology a new respect for participative work redesign. It certainly shows how man/woman and machine can work together effectively.

However, this viewer would like to have seen more exploration of whether the technology was stimulating a group approach to work, as in the typical quality of working life (QWL) setting, or a more individual work redesign. In addition, none of the case studies represents a manufacturing operation. Since computers are also prevalent in manufacturing, I believe that a comparison of computer use in manufacturing and service tasks would have provided useful insights into the potential scope of this computer design paradigm.

I would recommend that people interested in increasing productivity through information processing technology or in a more human approach to the implementation of information processing technology view this video so as to evaluate how to apply the principles of this computer paradigm in their own context.

This video is available from:

California Newsreel
630 Natoma Street
San Francisco, California 94103
(415) 621-6196

New QWL Centre Publications

Three new working papers prepared by Centre staff and associates are now available on request:

Hazel Kerwood, *Notes Towards Redefining the Impact of New Technology on People and the Workplace.*

Tom Rankin, *The Development of New Forms of Work Organization in Sweden.*

Hans van Beinum, *Improving the Quality of Working Life: The Emergence of a New Organizational Paradigm.*

Three more are in preparation, and will be available in the near future:

• Fred Emery on learning to democratize.

• Bjorn Gustavsen on strategies for diffusion and interorganizational learning.

• Hans van Beinum on the development of the meaning of work.

Inquiries should be addressed to:

QWL Publications
Ontario Quality of Working Life
Centre
Ministry of Labour
400 University Avenue, 15th Floor
Toronto, Ontario M7A 1T7

Understanding QWL

by Greg Best

Almost four years ago, the phrase "Quality of Working Life" became part of the vocabulary of Rideau Regional Centre. Since then "QWL" has come to mean a lot of different things. To many, it is a cause of confusion and frustration, a scapegoat for all the things that go wrong or just don't work. To some, it is a great joke. Others see it as a "pipedream." It sounds good in principle but it could never happen here.

However, it is also seen as a glimmer of hope that there may be a better way of going about our business in this workplace. It is in this context that I would like to make a few comments and observations about Quality of Working Life at RRC.

What is Quality of Working Life?

Unfortunately, after four years, this is still the question asked most often about QWL. For whatever reasons, we as a working group (bargaining unit and management) have not completely come to grips with what QWL is all about.

If you read the literature, you find that QWL means "democratization of the workplace." The question then becomes: what does *that* mean? Democracy in the workplace means that all workers are considered to be capable of making responsible and thoughtful decisions about how the task of their area is completed. It takes this assumption a step further by dictating that those workers have a right to participate in the decision making process concerning the work that they do.

Quality of Working Life also asserts that workers have entitlements beyond money, health and safety issues, and basic rights under the collective agreement. Workers also require the opportunity for personal growth in the jobs that they do. RRC's first policy directive, GA 01, describes these requirements in terms of six principles:

learning, variety, elbow room, meaningfulness, mutual trust and respect, and a desirable future. These are, admittedly, vague concepts, but they do form a basis for workers and managers to develop more specific definitions and practices which satisfy these needs.

QWL rejects the premise that individual components of tasks should be assigned or matched to individual workers. A task is the responsibility of the working group (i.e. ward, unit, department, etc.) and that group must have not only the responsibility, but also the authority, to decide how it will be accomplished. This requires the design (or redesign) of the structure of an organization which will accommodate these principles, and thus provide flexibility and the capacity to adapt to an ever-changing environment.

Rideau Regional Centre, located outside of Smiths Falls, was Ontario's first residential facility for the developmentally handicapped. A practically self-sufficient community, the Centre presently serves 885 residents from northeastern Ontario. Many of the residents are multiply handicapped as well as being developmentally delayed. Twelve hundred staff provide a wide range of assessment, training and habilitation services.

For the past three years, the QWL Centre has been assisting the Rideau Centre's union and management in their joint process of redesigning the organization. Several groups have been involved in this participative redesign process, encompassing nine field sites in different parts of the organization. Greg Best, president of OPSEU local 436, reflects on the general process of discovering QWL at Rideau Regional Centre.

Quality versus Excellence

After having said a bit about what QWL is, it now seems appropriate to say something about what it is not. Over the past year, management groups and some department groups have watched two videos, *In Search of Excellence* and *A Passion for Excellence*. Many people have come away from these meetings thinking that this is what QWL is all about. In fact, these programmes say nothing about Quality of Working Life.

The concept of "excellence" is based on values which are largely, if not solely, management's values: productivity, growth, and commitment to the company (management). Quality of Working Life is based on a belief in democracy — in sharing of responsibilities and authority between workers and managers and in the basic dignity of people (at RRC, this would very much include residents).

Proponents of "excellence" have discovered that a happy worker is a better worker. To this end, managers may devise a number of incentives or "goodies" to help workers feel better about their workplace or more involved in what managers are deciding. However, these giveaways stop well short of recognizing the worker as an equal partner in the operation of the workplace.

In view of this it is important for workers to recognize the difference between Quality and Excellence or, more accurately, between QWL and what is known as "participatory management." They need to understand the values and principles of workplace democracy and be willing to accept the rights that these imply. They must be well informed and well organized in order to obtain and exercise those rights. As well, they must be empowered to work in a true partnership with management in creating a structure which allows them to practice the values of QWL.

Why are we doing this?

Local 436 decided in April of 1984 to participate in QWL at RRC. This decision, taken by the local executive,

was based largely on the assumption that QWL in theory meant additional rights for members (a shelter agreement between OPSEU and the Civil Service Commission protects those rights already established) and an opportunity for local members to play a role in shaping a future for Rideau Regional Centre.

With nearly four years of hard reality to add to this theory, the local's reasons for involvement remain the same although the immense and complex difficulties of realizing these rights have become quite evident. The role of the union to promote and protect the welfare, dignity and rights of the membership has not changed. QWL provides a forum for workers, through their union, to participate jointly with management in designing a workplace which respects and enhances those rights. This also means that workers should no longer find it

necessary to wait for managers to act so that they can react. The approach becomes much more positive, more proactive.

How can we make it happen?

In order to make a QWL process work at Rideau, workers and their managers will have to understand and accept the values inherent in that process. There will have to be a *joint* commitment to bring about the kind of changes in organization and attitude necessary for those values to survive.

For managers, this new democracy means not only sharing the traditional authority and power which previously had been theirs alone. They will also have to encourage and assist workers in their areas to accept and adapt to their new role as planners and decision-makers.

For workers, democracy means participation. Without participation, democracy doesn't work. We have to be involved in and be part of the decisions made about how our work is done. We have to participate in redesigning that workplace in accordance with those decisions. Participation within the structure of the union local is also vital in order that the rights and ideas of all workers can be clearly and strongly represented by means of this process. It will be a new, exciting, and sometimes frustrating learning experience for all of us. It won't be easy.

What we are trying at Rideau is a first. It has gained attention not only within the Ontario Public Service and OPSEU, but worldwide. We have an opportunity to do something really important, an opportunity to bring about significant and positive change. It is up to us to make the most of it.



Rideau Regional Centre, Smiths Falls, Ontario



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